

EDITORIALS

Evidence-based clinical practice guidelines on management of pain in older people

Pain in older people is not only under-recognised, but is also under-treated. Many professional bodies have documented that pain in this rapidly growing population is poorly controlled [1–7]. This may be related to attitudes and beliefs held by older people, which in turn affects their reporting of pain [8] but also due to misconceptions and educational deficits by health professionals [9, 10]. Treatment when prescribed is often limited to basic medication seldom tailored to the individual [11–14]. There is also a general failure by professionals to consider alternative pain relief options [2]. No doubt more needs to be done and national guidance on the management of pain in older people is long overdue.

Older people are different; the bio-physiological changes that occur with ageing, the accumulation of co-morbidities and co-prescription of medication, frailty and psychosocial changes make older people rather unique when considering treatment modalities for pain control.

The British Geriatric Society and British Pain Society have collaborated to produce the first UK guideline on the management of pain in older people. The recommendations follow an extensive systematic review of the available literature and will help health professionals consider the options available when managing pain in older patients.

The guideline has been categorised into sections dealing with pharmacology, interventional therapies, psychological interventions, physical activity and assistive devices and complementary therapies. This article provides a summary of the recommendations. The full guideline is available in the supplement accompanying this issue of the journal.

Pharmacological intervention

Few studies investigating the effects analgesic drugs have been performed specifically in older people [15]. For many analgesic medicines, a lower initial dose may be required than prescribed for younger adults and should be titrated to response. The first line pharmacological treatment, particularly in musculoskeletal pain is paracetamol. It has demonstrated efficacy and a good safety profile, but it is important that the maximum daily dose is not exceeded. Although NSAIDs are effective analgesics, their side effect profile requires cautious use. If essential, the lowest dose should be used for the shortest period and reviewed

regularly. Opioids are effective in the short term, but evidence for long-term efficacy is much more limited and hence patients prescribed opioids should have regular review, both for efficacy and tolerability. Side effects, particularly constipation, should be anticipated and prophylactic treatments prescribed. Excessive sedation can be problematic and should be monitored carefully. Tricyclic antidepressants or anti-epileptics may be considered for neuropathic pain, although side effects often limit their use. Topical analgesics have a role in localised pain; both lidocaine and capsaicin have limited efficacy in localised neuropathic pain and topical NSAIDs may be suitable for non-neuropathic pain.

Combination therapy using different classes of analgesics may provide greater pain relief through synergistic action with fewer side effects compared with higher doses of a single medicine.

Interventional therapies

Interventional therapies in the management of chronic pain include a variety of neural blocks and minimally invasive procedures. The recommendations produced in this section are limited to specific interventions in clinical conditions common in older people. Intra-articular (IA) corticosteroid injection in osteoarthritis of the knee is effective in relieving pain in the short term with little risk of complications and/or joint damage. Hyaluronic acid is also effective but appears to have a slower onset of action and lasts longer than steroids. The evidence for IA injection of other joints, however, is limited.

The evidence for facet joint interventions is mixed, although there is some support for radiofrequency lesioning for both cervical and lumbar facet joint pain in appropriately selected patients. There is also limited data to support consideration of epidural steroid injections and adhesiolysis for spinal stenosis and radicular symptoms. However, the use of an image-guided transforaminal approach yielded better outcomes than the blind approach especially in patients with sciatica. In painful vertebral fractures and despite the initial favourable reports, the current data for the use of vertebroplasty and kyphoplasty is conflicting [16–19]. Until further larger studies become available, no

firm recommendations could be made. Similarly, the evidence is weak for sympathectomy in neuropathic pain.

In acute herpes zoster and post-herpetic neuralgia, nerve block using a combination of local anaesthetic and corticosteroid is effective. There is also support for the use of botulinum toxin.

Microvascular decompression is the treatment of choice in healthy patients with trigeminal neuralgia while percutaneous procedures should be considered in patients with significant co-morbidity.

Interventional therapies, where the evidence exists, should be considered especially in patients with chronic pain when pharmacological treatments are ineffective or not tolerated.

Psychological interventions

It is well recognised that psychological factors often influence the manner people respond to and cope with pain, and techniques may modify beliefs and attitudes. However, few studies have focused on older adults and sample sizes are small. Nonetheless, psychological interventions such as cognitive behavioural therapy (CBT) or behavioural therapy may be effective in decreasing chronic pain in adults and improving disability and mood [20, 21]. Elderly nursing home residents with chronic pain may benefit from CBT pain management interventions. Psychological interventions may be used as an adjunct to pharmacological intervention and/or other modalities.

Physical activity and assistive devices

Physical activity and assistive devices encompass a wide range of interventions. The available evidence supports the use of programmes that comprise strengthening, flexibility and endurance activities to increase physical activity, improve function and pain [22–26]. There are many different forms of exercise and the choice of exercise type can pose a dilemma. Given the absence of evidence to recommend one type of exercise over another, patient preference should be a key factor and programmes should be customised to individual capacity and need [27]. A large range of potential options includes progressive resistance exercise, walking, water-based exercise/hydrotherapy. Adaptations of Tai-Chi [28, 29] and Yoga [30] and advances in gaming technology such as Wii and Kinect are also opening up new possibilities. Persistent pain is also a strong risk factor for falls in older people [31]. Incorporation of cognitive behavioural principles into programmes and the provision of supervision is likely to help [32] in enhancing motivation [33].

Although a wide variety of assistive devices are available, research into these assistive devices is mostly descriptive in nature and very few studies have considered pain reduction in older people. These devices are designed to assist in activities of daily living, either personal activities—i.e. associated with personal hygiene, dressing, and eating or instrumental, such as cooking, shopping, leisure etc. The evidence to date suggests that assistive devices may support

community living, reduce functional decline, reduce care costs and reduce pain intensity relative to older people not provided with devices.

Complementary therapies

Some types of complementary therapy [e.g. acupuncture, transcutaneous electrical nerve stimulation (TENS), massage] have been used for older adults with painful conditions, although the available studies lack methodological rigour. Acupuncture applied singularly or in combination with other modalities has an impact on pain and quality of life in patients with osteoarthritis. Conventional TENS can be used for relief of musculoskeletal pain. Similarly, percutaneous electrical nerve stimulation combined with physiotherapy reduces pain and self-reported disability for up to 3 months. Other therapies such as massage can be used to treat chronic pain, in particular shoulder or knee pain. Reflexology reduces anxiety in patients with breast or lung cancer.

Limitations

The guidelines focus on the management of chronic pain in older people. However the recommendations, especially in the sections on pharmacology and interventional therapy, may be applied for the management of acute pain. The group opted for a general guidance rather than specific types of pain although those common in older people such as sciatica, osteoarthritis of knee, postherpetic neuralgia and trigeminal neuralgia were also explored.

Despite the extensive search, the literature was lacking in studies specifically targeting the management of pain in older people necessitating the inclusion of studies that were not specific to but included people over the age of 65 years. Where evidence was limited we extrapolated from available evidence-based studies in younger adults. The guideline has exposed this deficiency and we call for more robust research and quality studies in pain management in older people. Furthermore, issues of communication between older people and health professionals are important factors affecting the assessment of pain and consequent management strategies. This has hitherto received little attention in the scientific literature.

In producing these guidelines, the intention was not to construct flow charts or step by step algorithms for pain management in older people. Instead, the aim was to increase the awareness of clinicians to consider alternatives through highlighting the available evidence. Indeed, often more than one treatment modality may be required for satisfactory pain control, for example, combining psychological therapies alongside non-opioid analgesia in patients with long-standing chronic pain, or the combination of interventional therapy to weak opioids especially in localised pain, has the advantage of minimising side effects from increasing the dose of systemic medication.

The intention is to update these guidelines every 3–5 years.

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References

1. A.G.S. Panel on Chronic Pain in Older Persons. The management of chronic pain in older persons. *J Am Geriatr Soc* 1998; 46: 635–51.
2. Cairncross L, Magee H, Askham J. *A Hidden Problem: Pain in Older People*. Oxford: Picker Institute Europe, 2007.
3. Ferrell BA, Ferrell BR, Rivera L. Pain in cognitively impaired nursing home patients. *J Pain Symptom Manage* 1995; 10: 591–8.
4. Kumar A, Allcock N. *Pain in Older People. Reflections and Experiences from an Older Person's Perspective*. London: The University of Nottingham—The British Pain Society, 2008.
5. Magee H, Parsons S, Askham J. *Measuring Dignity in Care for Older People*. London: The Picker Institute for Help the Aged, 2008.
6. Zwakhalen S, Koopmans R, Geels P, Berger M, Hamers J. The prevalence of pain in nursing home residents with dementia measured using an observational pain scale. *Eur J Pain* 2009; 13: 89–93.
7. Zyczkowska J, Szczerbinska K, Jantzi M, Hirdes J. Pain among the oldest old in community and institutional settings. *Pain* 2007; 129: 167–76.
8. Allcock N, McGarry J, Elkan R. Management of pain in older people within the nursing home: a preliminary study. *Health Soc Care Community* 2002; 10: 464–71.
9. Ferrell BA, Ferrell BR, Osterweil D. Pain in the nursing home. *J Am Geriatr Soc* 1990; 38: 409–14.
10. José Closs S. Pain in elderly patients: a neglected phenomenon? *J Adv Nursing* 1994; 19: 1072–81.
11. Cohen-Mansfield J, Lipson S. Pain in cognitively impaired nursing home residents: how well are physicians diagnosing it? *J Am Geriatr Soc* 2002; 50: 1039–44.
12. McClean WJ, Higginbotham NH. Prevalence of pain among nursing home residents in rural New South Wales. *Med J Aust* 2002; 177: 17–20.
13. Melding P. Can we improve pain management in nursing homes? *Med J Aust* 2002; 177: 5–6.
14. Melding PS. Who is losing the language? Persistent pain in home-dwelling elders. *Age Ageing* 2004; 33: 432–4.
15. Ickowicz E, Ferrell B, Argoff C *et al*. Pharmacological management of persistent pain in older persons. American Geriatrics Society panel on the pharmacological management of persistent pain in older persons. *J Am Geriatr Soc* 2009; 57: 1331–46.
16. Álvarez L, Alcaraz M, Pérez-Higueras A *et al*. Percutaneous vertebroplasty: functional improvement in patients with osteoporotic compression fractures. *Spine* 2006; 31: 1113–8. doi:10.1097/01.brs.0000216487.97965.38.
17. Amar AP, Larsen DW, Esnaashari N, Albuquerque FC, Lavine SD, Teitelbaum GP. Percutaneous transpedicular polymethylmethacrylate vertebroplasty for the treatment of spinal compression fractures. *Neurosurgery* 2001; 49: 1105–15.
18. Buchbinder R, Osborne RH, Ebeling PR *et al*. A randomized trial of vertebroplasty for painful osteoporotic vertebral fractures. *N Engl J Med* 2009; 361: 557–68.
19. Kallmes DF, Comstock BA, Heagerty PJ *et al*. A randomized trial of vertebroplasty for osteoporotic spinal fractures. *N Engl J Med* 2009; 361: 569–79.
20. CIPHER DJ, Clifford PA, Roper KD. The effectiveness of geropsychological treatment in improving pain, depression, behavioral disturbances, functional disability, and health care utilization in long-term care. *Clin Gerontol* 2007; 30: 23–40. [doi: 10.1300/J018v30n03_02] (2012/07/08).
21. Eccleston C, Williams AC, Morley S. Psychological therapies for the management of chronic pain (excluding headache) in adults. *Cochrane Database Syst Rev* 2009; 2: CD007407.
22. Corrêa Dias R, Domingues Dias JM, Ramos LR. Impact of an exercise and walking protocol on quality of life for elderly people with OA of the knee. *Physiother Res Int* 2003; 8: 121–30.
23. Ferrell B, Josephson K, Pollan A, Loy S, Ferrell B. A randomized trial of walking versus physical methods for chronic pain management. *Age Aging* 1997; 9: 99–105.
24. Hasegawa R, Islam MM, Nasu E *et al*. Effects of combined balance and resistance exercise on reducing knee pain in community-dwelling older adults. *Phys Occupat Ther Geriatr* 2010; 28: 44–56.
25. Jamtvedt G, Dahm K, Christie A *et al*. Physical therapy interventions for patients with osteoarthritis of the knee: an overview of systematic reviews. *Phys Ther* 2008; 88: 123–36.
26. Walsh NE, Mitchell HL, Reeves BC, Hurley MV. Integrated exercise and self-management programmes in osteoarthritis of the hip and knee: a systematic review of effectiveness. *Phys Ther Rev* 2006; 11: 289–97.
27. Airaksinen O, Brox J, Cedraschi C *et al*. Chapter 4 European guidelines for the management of chronic nonspecific low back pain. *Eur Spine J* 2006; 15: S192–S300.
28. Li F, Fisher KJ, Harmer P, Irbe D, Tarse RG, Weimer C. Tai Chi and self-rated quality of sleep and daytime sleepiness in older adults: a randomized controlled trial. *J Am Geriatr Soc* 2004; 52: 892–900.
29. Wolf SL, Barnhart HX, Kutner NG, McNeely E, Coogler C, Xu T. Reducing frailty and falls in older persons: an investigation of Tai Chi and computerized balance training. Atlanta FICSIT Group. Frailty and Injuries: Cooperative Studies of Intervention Techniques. *J Am Geriatr Soc* 1996; 44: 489–97.
30. Chen K-M, Tseng W-S, Ting L-F, Huang G-F. Development and evaluation of a yoga exercise programme for older adults. *J Adv Nurs* 2007; 57: 432–41.
31. Leveille S, Jones R, Kiely D *et al*. Chronic musculoskeletal pain and the occurrence of falls in an older population. *JAMA* 2009; 302: 2214–21.
32. Liddle SD, Baxter GD, Gracey JH. Exercise and chronic low back pain: what works? *Pain* 2004; 107: 176–90.
33. Sabin KL. Older adults and motivation for therapy and exercise: issues, influences, and interventions. *Top Geriatr Rehabil* 2005; 21: 215–20.