

Opioid-Sparing Multimodal Analgesia for Chronic Non-Cancer Pain: Current Evidence and Clinical Perspectives

AHMAD MIRZA, MD[1] | Usman Beigh, MD[2] | Imran Gani, MD[3] | Shameem Beigh, MD[4]

1. Department of Medicine, Medical College of Georgia, Augusta University

AUGUSTA UNIVERSITY

Background

Chronic non-cancer pain (CNCP) is a complex health condition that substantially limits physical function and quality of life. Although opioids have long been incorporated into pain management, concerns regarding their long-term effectiveness and risk profile have prompted increasing interest in non-opioid, multidisciplinary treatment approaches. This review examines the clinical performance of opioid-sparing multimodal interventions for CNCP.

Methods

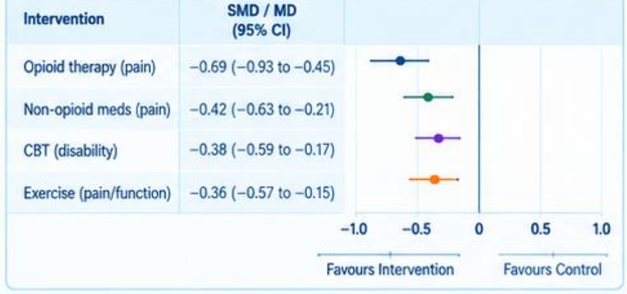
A narrative synthesis was performed using evidence from randomized controlled trials and systematic reviews evaluating pharmacological, behavioural, rehabilitative, and interventional therapies. The analysis focused on their effects on pain severity, functional capacity, and opioid dose reduction, with findings interpreted using reported effect estimates and measures of statistical significance.

Results

Key Findings from Evidence Synthesis

Intervention / Comparison	Outcome	Effect Estimate (95% CI)	p-value
Long-term opioid therapy vs. non-opioid/standard care	Pain reduction (mean difference)	−0.69 (−0.93 to −0.45)	<0.001
Non-opioid medications (e.g., SNRIs)	Pain reduction (SMD)	−0.42 (−0.63 to −0.21)	<0.001
Cognitive behavioural therapy	Disability reduction (SMD)	−0.38 (−0.59 to −0.17)	<0.001
Exercise programmes	Pain & function (SMD)	−0.36 (−0.57 to −0.15)	<0.001
Spinal cord stimulation	Responder rate / opioid reduction	79% / 26–45%	<0.001

Forest Plot – Selected Outcomes



Key Takeaways

- **Opioids:** limited benefit and higher risk profile
- **Non-opioids:** modest analgesic benefit
- **CBT:** improves disability and coping
- **Exercise:** improves pain and physical function
- **SCS:** strongest short-term analgesia and reduced opioid use (26–45%)

Discussion

The findings indicate that successful management of CNCP extends beyond pain reduction alone. Interventions targeting behavioural adaptation, physical rehabilitation, and neural pain modulation provide broader improvements in functional ability and overall well-being than opioid-based treatment alone.

Conclusion

Opioid-sparing multimodal management offers a more comprehensive and safer strategy for CNCP than long-term opioid therapy. Integrating complementary therapies tailored to individual patient needs should be considered a cornerstone of contemporary chronic pain management.

References

1. Turvill, A., Maratos, F., & Sheffield, D. (2026). Assessing the impact of interdisciplinary multimodal pain treatment on health-related quality of life in chronic pain: A systematic review and meta-analyses. *European Journal of Pain*, 30(1), e70176. https://doi.org/10.1002/ejp.70176.
2. Cordero-Pérez, F. J., et al. (2026). Optimizing opioid use in pain management: A comprehensive review of clinical benefits, risks, and dependence. *Healthcare*, 14(4), 457. https://doi.org/10.3390/healthcare14040457.
3. Soleymani, H., et al. (2026). Change in opioid use following spinal cord stimulation: A systematic review and meta-analysis. *Regional Anesthesia & Pain Medicine*, rapm-2026-107603. https://doi.org/10.1136/rapm-2026-107603.
4. Barros, A. M. S. P. (2025). The effectiveness of spinal cord stimulation combined with physiotherapy in the management of chronic pain in adults. *Frontiers in Pain Research*, 6, 1620289. https://doi.org/10.3389/fpain.2025.1620289.
5. Yong, R., Tran, O., McGovern, A., Patil, P., & Gilligan, C. (2024). Long-term reductions in opioid medication use after spinal stimulation: A claims analysis among commercially-insured population. *Journal of Pain Research*, 17, 1773-1784. https://doi.org/10.2147/JPR.S441195.