



## Topic Brief: Chronic Pain Treatment for Older Adults

**Date:** 7/20/2022

**Nomination Number:** 1010

**Purpose:** This document summarizes the information addressing a nomination submitted on June 3, 2022, through the Effective Health Care Website. This information was used to inform the Evidence-based Practice Center (EPC) Program decisions about whether to produce an evidence report on the topic, and if so, what type of evidence report would be most suitable.

**Issue:** The nominator of this topic is an individual who is concerned about gaps in data related to non-opioid treatment modalities and their risk/benefits to older adults, and concerned about the lack of a lifespan approach in the coming CDC guidance around pain management. They request an AHRQ systematic review (a) focused on managing persistent pain in older adults; (b) addresses the full scope of concerns when prescribing analgesic options that considers not just opioids but also other analgesics that carry risk burden (e.g., non-steroidal anti-inflammatory drugs (NSAIDs), anticonvulsants); and (c) addresses non-pharmacologic treatments.

**Findings:** The EPC Program does not develop clinical guidance. The EPC Program's recently updated reviews around pharmacologic and nonpharmacologic treatments for chronic pain address the nomination questions.

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### Background

In 2019, 20.4% of adults had chronic pain and 7.4% of adults had chronic pain that frequently limited life or work activities (referred to as high impact chronic pain) in the past 3 months. Chronic pain and high-impact chronic pain both increased with age and were highest among adults aged 65 and over.<sup>1</sup> Chronic pain contributes to about \$560 billion each year in direct medical costs, lost productivity, and disability.<sup>2</sup>

Managing pain in older adults can be complex because of age-related physiologic changes, associated medical and mental health comorbidities, polypharmacy, increases in pain thresholds, decreases in pain tolerance, and alterations in pharmacokinetics and pharmacodynamics that increase the risk of side effects from pharmacologic treatment.<sup>3</sup>

### Scope

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<sup>1</sup> Zelaya CE, Dahlhamer JM, Lucas JW, Connor EM. Chronic pain and high-impact chronic pain among U.S. adults, 2019. NCHS Data Brief, no 390. Hyattsville, MD: National Center for Health Statistics. 2020.

<sup>2</sup> Dahlhamer J, Lucas J, Zelaya, C, et al. Prevalence of Chronic Pain and High-Impact Chronic Pain Among Adults — United States, 2016. MMWR Morb Mortal Wkly Rep 2018;67:1001–1006. DOI:

[http://dx.doi.org/10.15585/mmwr.mm6736a2external icon](http://dx.doi.org/10.15585/mmwr.mm6736a2external%20icon)

<sup>3</sup> <https://www.va.gov/PAINMANAGEMENT/Providers/PainElderVeterans.asp>

1. What is the effectiveness and harms of pharmacologic intervention for treatment of chronic pain in older adults?
2. What is the effectiveness and harms of non-pharmacologic interventions for treatment of chronic pain in older adults?

## Assessment Methods

See Appendix A.

## Summary of Literature Findings

The EPC Program has five recent systematic reviews that address the concerns of the nomination:

- [Noninvasive Nonpharmacological Treatment for Chronic Pain](#)
- [Nonopioid Pharmacologic Treatments for Chronic Pain](#)
- [Opioid Treatments for Chronic Pain](#)
- [Integrated and Comprehensive Pain Management Programs: Effectiveness and Harms](#)
  - This review has special attention for the Medicare population
- [Interventional Treatments for Acute and Chronic Pain: Systematic Review](#)
  - This review has special attention for the Medicare population

While we identified other systematic reviews on treatment for chronic pain, subgroup analysis on older adults were not included:

- Topical clonidine for neuropathic pain in adults<sup>4</sup>
- Implanted spinal neuromodulation interventions for chronic pain in adults<sup>5</sup>
- Exercise Therapy for Low Back Pain<sup>6</sup>
- Psychological therapies for the management of chronic pain (excluding headache) in adults<sup>7</sup>

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**Conflict of Interest:** None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

## Acknowledgements

Suchitra Iyer, PhD

This report was developed by staff at the Agency for Healthcare Research and Quality (AHRQ). The findings and conclusions in this document are those of the author(s) who are responsible for its contents; the findings and conclusions do not necessarily represent

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<sup>4</sup> Srednicki WT, Wrzosek A, Woron J, Garlicki J, Dobrogowski J, Jakowicka-Wordliczek J, Wordliczek J, Zajackowska R. Topical clonidine for neuropathic pain in adults. Cochrane Database of Systematic Reviews 2022, Issue 5. Art. No.: CD010967. DOI: 10.1002/14651858.CD010967.pub3. [www.cochranelibrary.com](http://www.cochranelibrary.com) Topical clonidine for neuropathic pain in adults (Review)

<sup>5</sup> O'Connell NE, Ferraro MC, Gibson W, Rice ASC, Vase L, Coyle D, Eccleston C. Implanted spinal neuromodulation interventions for chronic pain in adults. Cochrane Database of Systematic Reviews 2021, Issue 12. Art. No.: CD013756. DOI: 10.1002/14651858.CD013756.pub2.

<sup>6</sup> Hayden JA, Ellis J, Ogilvie R, Malmivaara A, van Tulder MW. Exercise therapy for chronic low back pain. Cochrane Database of Systematic Reviews 2021, Issue 9. Art. No.: CD009790. DOI: 10.1002/14651858.CD009790.pub2. Accessed 01 August 2022.

<sup>7</sup> Williams AC de C, Fisher E, Hearn L, Eccleston C. Psychological therapies for the management of chronic pain (excluding headache) in adults. Cochrane Database of Systematic Reviews 2020, Issue 8. Art. No.: CD007407. DOI: 10.1002/14651858.CD007407.pub4. Accessed 01 August 2022.

the views of AHRQ. No statement in this article should be construed as an official position of the Agency for Healthcare Research and Quality or of the U.S. Department of Health and Human Services.

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## Appendix A: Methods

We assessed nomination for priority for a systematic review or other AHRQ Effective Health Care report with a hierarchical process using established selection criteria. Assessment of each criteria determined the need to evaluate the next one. See Appendix B for detailed description of the criteria.

### Appropriateness and Importance

We assessed the nomination for appropriateness and importance.

### Desirability of New Review/Absence of Duplication

We conducted a search for existing systematic reviews. We searched for high-quality, completed or in-process evidence reviews published in the last three years June 2019 to June 2022 on the questions of the nomination from these sources:

- AHRQ: Evidence reports and technology assessments
  - AHRQ Evidence Reports <https://www.ahrq.gov/research/findings/evidence-based-reports/index.html>
  - EHC Program <https://effectivehealthcare.ahrq.gov/>
- US Department of Veterans Affairs Products publications
  - Evidence Synthesis Program <https://www.hsrd.research.va.gov/publications/esp/>
  - VA/Department of Defense Evidence-Based Clinical Practice Guideline Program <https://www.healthquality.va.gov/>
- Cochrane Systematic Reviews <https://www.cochranelibrary.com/>
- PROSPERO Database (international prospective register of systematic reviews and protocols) <http://www.crd.york.ac.uk/prospere/>

## Appendix B. Selection Criteria Assessment

Selection Criteria	Assessment
<b>1. Appropriateness</b>	
1a. Does the nomination represent a health care drug, intervention, device, technology, or health care system/setting available (or soon to be available) in the U.S.?	Yes.
1b. Is the nomination a request for an evidence report?	The nominator is interested in a review of chronic pain treatments for older adults.
1c. Is the focus on effectiveness or comparative effectiveness?	Yes. The nominator is interested in effectiveness and harms of treatment.
1d. Is the nomination focus supported by a logic model or biologic plausibility? Is it consistent or coherent with what is known about the topic?	Yes.
<b>2. Importance</b>	
2a. Represents a significant disease burden; large proportion of the population	The prevalence of chronic pain was 20.4%, and the prevalence of high-impact chronic pain was 7.4% (or 36.4% of adults who had chronic pain). Chronic pain was highest among those aged 65 and over (30.8%). High impact chronic pain was highest in those aged 65 and over (11.8%).
2b. Is of high public interest; affects health care decision making, outcomes, or costs for a large proportion of the US population or for a vulnerable population	The cost of chronic pain is an estimated \$560 billion each year in direct medical costs, lost productivity, and disability programs.
2c. Incorporates issues around both clinical benefits and potential clinical harms	Yes. The nominator is interested in both benefits and harms,
2d. Represents high costs due to common use, high unit costs, or high associated costs to consumers, to patients, to health care systems, or to payers	Yes.
<b>3. Desirability of a New Evidence Review/Absence of Duplication</b>	
3. A recent high-quality systematic review or other evidence review is not available on this topic	We identified 5 systematic reviews from the EPC Program that address the nomination questions.