



## ARE THERE EFFECTIVE INTERVENTIONS FOR REDUCING THE USE OF PRESCRIBED OPIOIDS IN ADULTS WITH CHRONIC NON-CANCER PAIN? – A COCHRANE REVIEW SUMMARY WITH COMMENTARY

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**The aim of this commentary is to discuss the published Cochrane Review “Interventions for the reduction of prescribed opioid use in chronic non-cancer pain” by Eccleston C, Fisher E, Thomas KH, Hearn L, Derry S, Stannard C, Knaggs R, Moore RA (1) from a rehabilitation perspective. This Cochrane Corner is produced in agreement with *Journal of Rehabilitation Medicine* by Cochrane Rehabilitation<sup>1</sup>**

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### BACKGROUND

Chronic non-cancer pain (CNCP) is a common condition with prevalence rates as high as 33% of the population in western population and its optimal management is crucial to the health and wellbeing of the community. Opioids have long been used for acute and cancer pain and in the last two decades they have also been prescribed for CNCP (2). The 2012 American guidelines for responsible opioid prescribing in CNCP gave recommendations for ensuring the appropriate management of CNCP, and minimizing abuse of opioids and important side effects, such as tolerance and dependence (3). Sedation, impaired cognitive function, depression, constipation, and bladder dysfunction are common during opioid therapy (4). For these reasons, professional societies worldwide have

produced guidance advocating/promoting the judicious and careful use of opioids. Rehabilitation professionals who treat CNCP in rehabilitation settings should know the effectiveness or not of different methods to reduce the use of prescribed opioids for CNCP discussed in this review.

### INTERVENTIONS FOR THE REDUCTION OF PRESCRIBED OPIOID USE IN CHRONIC NON-CANCER PAIN

(Eccleston C, Fisher E, Thomas KH, Hearn L, Derry S, Stannard C, Knaggs R, Moore RA, 2017)

### WHAT IS THE AIM OF THIS COCHRANE REVIEW?

The aim of this Cochrane Review was to investigate the effectiveness of different methods designed to achieve reduction or cessation of prescribed opioid use for the management of CNCP in adults compared to controls.

### WHAT WAS STUDIED IN THE COCHRANE REVIEW?

The review included adults (18 years of age or older) using prescription opioids for management of CNCP lasting for 3 months or more. The interventions studied were all that aimed to dose reduction or cessation. The primary outcomes were prescribed opioid use and adverse events (AEs) related to opioid reduction. Secondary outcomes were pain intensity/severity, psychological functioning, and physical functioning.

### SEARCH METHODOLOGY AND SEARCH DATE OF THE COCHRANE REVIEW

The review authors searched Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, and Embase for studies published up to 4 January 2017. There were no language restrictions and [www.clinicaltrials.gov](http://www.clinicaltrials.gov) was searched for ongoing studies.

<sup>1</sup>This summary is based on a Cochrane Review previously published in the Cochrane Database of Systematic Reviews 2017, Issue 11. Art. No.: CD010323. DOI: 10.1002/14651858.CD010323.pub3. (see [www.cochranelibrary.com](http://www.cochranelibrary.com) for information). Cochrane Reviews are regularly updated as new evidence emerges and in response to feedback, and Cochrane Database of Systematic Reviews should be consulted for the most recent version of the review.

The views expressed in the summary with commentary are those of the Cochrane Corner author(s) and do not represent the Cochrane Library, the Cochrane Pain, Palliative and Supportive Care Review Group, or Wiley.

## WHAT ARE THE MAIN RESULTS OF THE COCHRANE REVIEW?

The review included 5 studies (278 participants). Participants were primarily women (mean age 49.63 years, SD 11.74) with different CNCP conditions. The studies were too heterogeneous to pool data in a meta-analysis and to judge the quality of evidence, so the results have been summarised from each study qualitatively.

The review shows mixed results from the studies:

- Garland 2014 compared 'Mindfulness-Oriented Recovery Enhancement' (MORE) with a support group control, and found that participants in the MORE group had lower desire for opioid consumption and significantly lower self-reported opioid misuse at the 8-week post-treatment, but not at 3-month follow-up. Naylor 2010 compared 'Therapeutic Interactive Voice Response' (TIVR) with usual treatment, following cognitive behavioural therapy (CBT) delivered to all participants for 11 weeks, and reported significantly lower opioid use at 4-month and 8-month follow-up in the TIVR group, compared to baseline. Sullivan 2017 compared opioid-tapering treatment to usual care, and found a reduction in opioid consumption in both groups at 22 weeks. There were no between-group differences in the percent reduction of opioid consumption from baseline at 22-week and 34-week follow-up. Zheng 2008 compared real electroacupuncture (REA) to sham electroacupuncture (SEA), and found significant reduction of opioid consumption in both groups at 8 weeks after baseline, without between-group differences, but after the 20-week follow-up opioid consumption had increased and was higher in the REA group, who maintained similar levels to the 8-week follow-up. One study did not measure this outcome.
- Three studies (Jamison 2010, Sullivan 2017, Zheng 2008) reported AEs related to the study. Instead, Garland 2014 and Naylor 2010 did not observe study-related AEs.
- There are mixed findings for pain intensity, psychological functioning, and physical functioning. Two studies (Garland 2014 and Naylor 2010) reported a reduction of pain intensity. Psychological functioning improved in 3 studies (Jamison 2010, Naylor 2010 and Zheng 2008). Physical functioning improved in 3 studies (Garland 2014, Naylor 2010 and Sullivan 2017).

## WHAT DID THE AUTHORS CONCLUDE ON THE EVIDENCE?

The authors concluded that there is insufficient evidence about efficacy and safety of methods for reducing prescribed opioid use in adults with CNCP. Few randomised controlled trials (RCTs) investigated benefits and harms

of psychological, pharmacological, or other types of interventions for people with CNCP trying to reduce their opioid consumption.

## WHAT ARE THE IMPLICATIONS OF THE COCHRANE EVIDENCE FOR PRACTICE IN REHABILITATION?

This Cochrane Review aimed to investigate the effectiveness of different methods designed to achieve reduction or cessation of prescribed opioid use for the management of CNCP in adults compared to controls.

The small number of RCTs, small number of participants, and heterogeneity that prevented pooling of data in meta-analysis and evaluating quality of evidence, do not allow making conclusions about utilization of tested interventions in practice. A larger body of evidence in this field comes from observational studies, which were discussed but not included for analysis in this Cochrane Review. A three-week, outpatient, intensive, multidisciplinary pain rehabilitation programme conducted at the Mayo Clinic Pain Rehabilitation Center demonstrated large reductions in medication use, particularly in use of opioids. From a rehabilitation perspective, this could suggest that the people who underwent intensive rehabilitation packages may achieve a major reduction of opioids use. Therefore, clinical trials of these interventions are needed to evaluate the effectiveness of rehabilitation packages aimed to reduce prescribed opioid use.

## ACKNOWLEDGEMENTS.

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