

# Medicinal cannabis: Chronic non-cancer pain

This fact sheet summarises the evidence and clinical guidance in the Therapeutic Goods Administration's (TGA) [Guidance for the use of medicinal cannabis in the treatment of chronic non-cancer pain in Australia](#).

There has been increasing interest in recent years regarding medicinal cannabis\*. However, there is a limited body of evidence to support its efficacy and safety in clinical practice.<sup>1-3</sup>

While anecdotal reports, animal data and some research on human subjects have suggested some therapeutic potential, there is insufficient evidence from high quality studies, such as randomised controlled trials (RCTs), for most conditions.<sup>2</sup>

In response the TGA has published [guidance documents](#) to assist health professionals and patients in the use of medicinal cannabis, including the document for chronic non-cancer pain (CNCP).

Note that medicinal cannabis is not recommended as a first line treatment in any condition. Prescribing should always be considered on a case-by-case basis and once all other standard approved treatments have been unsuccessful.

## Evidence<sup>4</sup>

About the TGA Guidance for the use of medicinal cannabis in the treatment of chronic non-cancer pain in Australia:

- ▶ a systematic review and meta-analysis of studies of conditions including: CNCP (mixed conditions; multiple sclerosis MS-related, and non-MS related), neuropathic pain (MS-related, and non-MS related), fibromyalgia, arthritis (mixed conditions) and rheumatoid arthritis.
- ▶ 102 studies (26 parallel RCTs, 23 cross-over RCTs and 53 observational studies) included; GRADE (grading of recommendations, assessment, development and evaluation) approach for evaluating evidence quality found most studies were moderate to very low quality.
- ▶ most evidence was derived from studies where medicinal cannabis was an adjunctive treatment.

### All CNCP conditions

Meta-analysis of medicinal cannabis (as a class of products) for all the above CNCP conditions found they were more likely than placebo to achieve 30% and 50% pain reductions (primary endpoints) and more likely than placebo to produce a significantly greater reduction in pain intensity.

Statistical analysis of specific medicinal cannabis products, including:<sup>5</sup>

- ▶ nabiximols (plant extract of delta-9 tetrahydrocannabinol:cannabidiol (THC:CBD) ~50%:50% combination; TGA-registered)
- ▶ nabilone (synthetic THC; not TGA-registered)
- ▶ THC extract from plant (not TGA-registered)

found they each were much less consistently superior to placebo for a 30% reduction in pain (primary endpoint) or reducing pain intensity. This finding probably reflects the small number of trials and their small sample sizes.

Of these specific products, nabiximols was highlighted as possibly having a modest effect in some CNCP conditions over a limited time. However, it also had a substantial risk of bias in the trials reviewed, tolerance was not addressed and the risk of harm with long term use was poorly documented.

### MS-related neuropathic pain

Meta-analysis found medicinal cannabis (as a class of products) was more likely to achieve a 30% reduction in pain (primary endpoint) (low GRADE), and a non-statistically significant increase in the proportion of patients who achieved a 30% reduction in pain. Patients who used medicinal cannabis experienced a decrease in pain scores compared with those who received a placebo (moderate GRADE).

\*NPS MedicineWise has adopted the term 'medicinal cannabis', which is used by the TGA, many health departments and affiliated organisations. Variations include cannabis medicines, cannabinoids, cannabis-based products (CBP).

### Non-MS related neuropathic pain

Patients who used medicinal cannabis products such as nabiximols and THC: Cannabidiol (CBD) extracts were more likely to experience a 50% reduction in pain (primary endpoint) and pain scores compared to placebo.

### Arthritis and fibromyalgia

There was insufficient evidence to conduct a meta-analysis for arthritis and fibromyalgia.

### Adverse events

Patients taking medicinal cannabis (as a class of products) for all the above CNCP conditions had 2.3 times the odds ratio of experiencing an adverse event and 2.5 times the odds ratio of a serious adverse event compared to placebo. Most included studies were on products not TGA-registered such as dronabinol and THC:CBD extracts.

The common adverse events include dizziness, nausea, drowsiness, effects upon mood, cognition and attention.

### Drug-drug interactions

There is no evidence to provide guidance on drug-drug interactions. More research is needed on drug-drug interactions in CNCP.

## Clinical guidance<sup>4</sup>

- ▶ Patient education is critical for CNCP management, particularly with respect to expectations of medicines, including medicinal cannabis, and that they're not the core component of therapy.
- ▶ Medicinal cannabis is not recommended as a first-line treatment for any of the above CNCP conditions.
- ▶ When deciding whether to prescribe medicinal cannabis, either as an adjunctive treatment or monotherapy, take into account the:
  - ▶ common adverse events and whether these events are likely to interfere with quality of life beyond any reduction in pain achieved by the medicinal cannabis product
  - ▶ limited evidence of low quality and significant potential for drug-drug interactions
  - ▶ individual patient's risks associated with usage for long periods of time
- ▶ In the absence of strong evidence for dosing and preparations, assess response one month after treatment has commenced.

## Prescribing guidance

The NSW Cannabis Medicines Prescribing Guidance is a suite of resources intended to assist medical practitioners in their prescribing and management of cannabis medicines (for NSW patients within current regulatory frameworks and clinical practice).

Visit the Australian Centre for Cannabinoid Clinical and Research Excellence (ACRE) to download the documents.

<https://www.australiancannabinoidresearch.com.au/resources>

## Further information

Studies included in the TGA guidance document, as well as the latest results from RCTs and other studies are [found here](#).

### National sources:

[NPS MedicineWise](#)

[Office of Drug Control](#)

[TGA](#)

### State and territory health departments:

[ACT](#)

[Northern Territory](#)

[NSW](#)

[Queensland](#)

[South Australia](#)

[Tasmania](#)

[Victoria](#)

[Western Australia](#)

## References

1. Therapeutic Goods Administration. Guidance for the use of medicinal cannabis in Australia - Overview. Canberra: Government of Australia, Department of Health, 2017. <https://www.tga.gov.au/publication/guidance-use-medicinal-cannabis-australia-overview> (accessed 10 May 2020).
2. Queensland Health. Clinical Guidance: for the use of medicinal cannabis products in Queensland. 2016. [https://www.health.qld.gov.au/\\_data/assets/pdf\\_file/0023/634163/med-cannabis-clinical-guide.pdf](https://www.health.qld.gov.au/_data/assets/pdf_file/0023/634163/med-cannabis-clinical-guide.pdf) (accessed 10 May 2020).
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4. Therapeutic Goods Administration. Guidance for the use of medicinal cannabis in the treatment of chronic non-cancer pain in Australia. Canberra: Government of Australia, Department of Health, 2017. <https://www.tga.gov.au/sites/default/files/guidance-use-medicinal-cannabis-treatment-chronic-non-cancer-pain-australia.pdf> (accessed 10 May 2020).
5. Therapeutic Goods Administration. Guidance for the use of medicinal cannabis in Australia - Patient information. Canberra: Government of Australia, 2017. <https://www.tga.gov.au/sites/default/files/guidance-use-medicinal-cannabis-australia-patient-information.pdf> (accessed 10 May 2020).