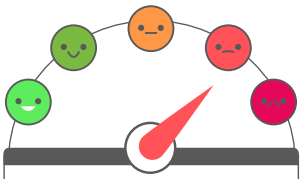
Medical cannabis or cannabinoids for chronic pain: a clinical practice guideline

Busse, J. et al. British Medical Journal. 2021. 374. n2040.

Visual overview of recommendations

Population

This recommendation applies only to people with these characteristics:



All patients living with moderate to severe chronic pain

Applies to people with:

- ✓ Cancer and non-cancer pain
- ✓ Neuropathic pain, nociceptive pain, and nociplastic pain

May or may not apply to:

- ? Paediatric populations
- ? Veterans
- ? Patients with concurrent mental illness
- ? Patients receiving disability benefits or involved in litigation

Does not apply to:

- X Inhaled medical cannabis
- X Recreational cannabis
- X Patients receiving end of life care

The weak recommendation reflects

- A high value placed on any improvement in pain intensity, physical functioning, and sleep quality
- Willingness to accept a small to modest risk of mostly self-limited and transient harms
- Uncertainty in and variability between typical patient preferences

Important considerations and areas of caution

- Gradual dose titration
- Adverse events monitoring
- Strain choice in children/adolescents
- Driving and operating machinery
- Pregancy and breast feeding

Recommendation

Cannabis

Standard care plus a trial of non-inhaled medicalcannabis or cannabinoids

Weak positive reccomendation

> *If standard care is not sufficient, we suggest offering a trial of non-inhaled medical cannabis or cannabinoids*

Evidence profile **Potential benefits**

Favours standard care | No important difference | Favours cannabis

		Events per 1000 people		Evidence quality
1 to 4 months				
Reduction in pain	520	100 more	620	Moderate
Improved physical function	280	40 more	320	High
Improved emotional function	310	No important difference	330	High
1 to 3.5 months				
Improved role function	410	No important difference	410	High
Improved social function	390	No important difference	380	High
1.3 to 3.5 months				
Improved sleep quality	480	60 more	540	High

Evidence profile **Potential short term harms**

		Events per 1000 people		Evidence quality
1.3 to 3.5 months				
Cognitive impairment	10	20 fewer	30	Moderate
1 to 3.5 months				
Drowsiness	40	50 fewer	90	Moderate
1 to 4 months				
Impaired attention	10	30 fewer	40	Moderate

Overview

While legislation for and use of medical cannabis is increasing, many clinicians remain uncertain of its role in managing chronic pain. Limited training and inconsistencies between guidelines have created confusion around if, when, and how to prescribe.

Current guidelines for medical cannabis use in chronic pain have important limitations, including the lack of inclusion of patient preferences and values, and their use of strong recommendations based on low certainty or absent evidence.

This guideline aims to ameliorate confusion with an evidence-based review of the benefits, harms, evidence and patient preferences for medical cannabis in chronic pain conducted by a panel of clinicians, patients and methodologists using the GRADE approach.

Current practice

Chronic pain affects approximately 20% of the population. Many people with the condition experience **problematic symptoms despite optimisation of treatment** and up to 1 in 3 are prescribed opioids.

Increasing recognition of the harms of long-term opioid use, weighed against their limited benefit, has generated enthusiasm for alternatives, including medical cannabis and cannabinoids.

While evidence for the utility of medical cannabis in chronic pain is emerging, there is an ongoing debate over whether to substitute interventions with known benefit/risk profiles (e.g., opioids) with another that is less certain (cannabis/cannabinoids).

Evidence

The panel considered **four linked systematic reviews reporting the benefits, harms, patient preferences and values** regarding medical cannabis or cannabinoids, typically when added to standard care, for chronic pain resulting from cancer or non-cancer causes.

The reviews considered eligible randomised controlled trials evaluating broad pain aetiologies and a range of interventions including cannabis and cannabinoids with variable THC and CBD components administered orally or topically.

Recommendations

The panel made a weak recommendation to **offer a trial of non-inhaled medical cannabis or cannabinoids, in addition to standard care and management** (if not sufficient to manage pain symptoms), for people living with chronic cancer or non-cancer pain.

This recommendation applies to **adults living with moderate to severe chronic pain**, including neuropathic, nociceptive, neoplastic and cancer-related causes. It may also apply to children and adolescents, though there is a limited evidence base in this population.

The weak recommendation represents the uncertainty and variability of patient preferences. For a strong recommendation to be given, the treatment needs to be one that almost all informed patients would choose if advised to do so.

Absolute benefits and harms

The panel reached a confident consensus that prescribing non-inhaled medical cannabis for chronic pain results in:

- A small increase in the proportion of people living with chronic pain experiencing an important improvement in pain and sleep quality (high and moderate certainty evidence, respectively)
- A small increase in the proportion of people living with chronic pain experiencing an important improvement in physical function (high certainty evidence)
- No improvement in emotional, social or role functioning (high certainty evidence)
- A small to very small increase in the proportion of people living with chronic pain experiencing cognitive impairment, vomiting, drowsiness, impaired attention, and nausea, and a moderate increase in the proportion of individuals experiencing dizziness that increased with longer follow-up (GRADE moderate to high certainty evidence).

The panel was less certain about whether there is a reduced use of opioids or an increased risk of serious harms.

Key practical issues

- Therapeutic trials should **start with low-dose, non-inhaled cannabidiol** (CBD) products, gradually increasing the dose and THC level depending on clinical response and tolerability
- Prior **cannabis experience should be considered**, and adverse event monitoring should be carefully conducted
- For children or adolescent patients, opt for CBD-predominant preparations
- **Serious adverse events are unlikely** with medical cannabis or cannabinoids, and patients cannot fatally overdose
- Pregnant or breastfeeding women or women attempting to conceive should be encouraged to discontinue cannabis use in favour of alternative therapy
- Advise patients to avoid driving or operating machinery while starting or changing doses of medical cannabis or cannabinoids

Summary

The panel concluded that patients with chronic pain of cancer or non-cancer causes who place a high value on any improvement in symptoms, such as those with treatment-refractory symptoms, may benefit from an adjunctive trial of non-inhaled cannabinoids.

References

Busse, J.W., Vankrunkelsven, P., Zeng, L., Heen, A.F., Merglen, A., Campbell, F., Granan, L.P., Aertgeerts, B., Buchbinder, R., Coen, M. and Juurlink, D., 2021. Medical cannabis or cannabinoids for chronic pain: a clinical practice guideline. British Medical Journal. 374.

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medical cannabis

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