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National Drug & Alcohol Research Centre

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Cannabinoids for the treatment of chronic non-cancer pain: an overview of the evidence

Emily Stockings, Gabrielle Campbell, Wayne Hall, Suzi Nielsen, Dino Zagic, Rakin Rahman, Bridin Murnion, Megan Weier, Louisa Degenhardt, **Michael Farrell (presenting author)**

Medicine | National Drug and Alcohol Research Centre | APSAD 2018, Auckland

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Conflicts of Interest

SN, MF, GC and LD have all been investigators on untied investigator-driven educational grants funded by Reckitt Benckiser. MF and LD have received an untied educational grant from Mundipharma for post-marketing surveillance studies of Reformulated OxyContin®. SN, MF and LD have been investigators on untied investigator-driven educational grants funded by Indivior. WH provided evidence to parliamentary committees on medical uses of cannabis in Australia and the United Kingdom. WH, MF, BM, GC, MW and LD have previously published manuscripts on the topic of therapeutic use of cannabis. Other authors declare no conflicts of interest. Conflict of interest statements will be available and updated on the project website at: https://ndarc.med.unsw.edu.au/our-projects

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Background

- Increasing attention to the role cannabis may play in treatment of CNCP
- Changes in legislation and use globally mean there will likely be an increase in the availability and use of cannabinoids for CNCP.
  - Relief from CNCP one of the most commonly cited reasons for u oids in the United States.

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Pain

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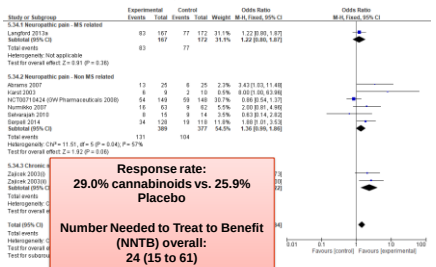
30% reduction in pain by pain condition



Response rate:
29.0% cannabinoids vs. 25.9% Placebo

Number Needed to Treat to Benefit (NNTB) overall:
24 (15 to 61)

NNTB MS-related CNCP: 33 (22 to 92)

Evidence grade: ⊕⊕⊕○

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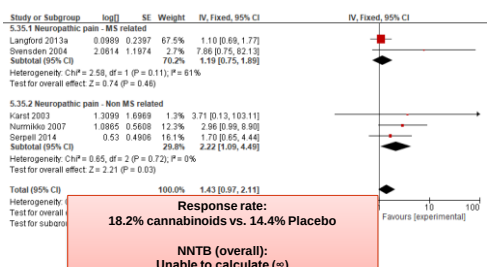
50% reduction in pain by pain condition



Response rate:
18.2% cannabinoids vs. 14.4% Placebo

NNTB (overall):
Unable to calculate (∞)

NNTB (Non-MS Neuropathic pain): 39 (23 to 346)

Evidence grade: ⊕⊕⊕○ MODERATE

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Multiple Sclerosis

A review of reviews confirmed benefit from use of Medicinal Cannabis for spasticity related to MS

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Primary outcomes

- Pain (*n* = 7 reviews):
  - 2 reviews = pain and painful spasms
  - 3 reviews = insufficient evidence or mixed findings
  - 1 review = no effect
  - 1 review = no conclusion
- Spasticity (n = 7 reviews), mostly used Modified Ashworth Scale (MAS)
  - 4 reviews = small spasticity
  - 1 review = may be effective
  - 1 review = insufficient evidence
  - 1 review = no conclusion

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Epilepsy

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Expert: Associate Professor Geoffrey Herkes

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Outcomes: Epilepsy

- Complete seizure freedom
- 50% or greater reduction in seizure frequency (responder rate)
- Quality of life outcomes
- Withdrawals – adverse events or any reason
- Adverse events
- Serious adverse events

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Meta-analysis results

In 3 RCT studies, CBD was significantly better than placebo at:

- Achieving complete seizure freedom
- Seizure reduction of 50% or more
- Improved quality of life

In comparison to placebo, patients were significantly more likely to:

- Withdraw from the trial
- Experience adverse events (especially SAEs)

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Conclusions: Epilepsy

- Limited RCTs indicate there may be therapeutic benefit of CBD in treating epilepsy and seizures – both seizure freedom and significant reduction in seizures
- CBD relatively well tolerated; evidence for THC and CBD:THC products are all observational
- Observational trials are positive, but many limited by lack of control and data on dosing
- Safety issues: dosing, product concentrations, interactions with other medications, non-medically supervised delivery

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PAIN: October 2018 - Volume 159 - Issue 10 - p 1932–1954

https://www.tga.gov.au/medicinal-cannabis-guidance-documents

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Take a look at the broader picture

What is the question

Research Evidence unlikely to resolve questions in immediate future

Global changes in Cannabis Legislation with legalisation in Uruguay, Canada, 10 States in US, Trial in Netherlands and Referendum in NZ

In Colorado now moving to eliminate distinction between medical and recreational cannabis supply

Need for consumer protection of medicines supplied through commerical pharma industry, TGA key tool

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Need to ameliorate expectations and not oversell likely benefits to vulnerable population

Where possible need to ensure access to effective and palliative medication

Need to avoid the lure of master strokes

Need to maintain appropriate regulatory control.

Need further research in a reasoned and objective enviorment but the debate around cannabis often leaves reason at the door from both pro and anti camps with highly polarised positions.

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