

Providers commonly prescribe opioid medications for chronic pain even though evidence on long-term effectiveness is limited and is associated with adverse reactions such as overdose and death. Cannabis, when used alone, does not seem to cause overdose deaths from respiratory depression. Patients often ask whether cannabis can be used in place of prescription opioids for treatment of chronic pain. This brief summarizes what is currently known about the possibility of substituting cannabis for prescription opioids.

Patients often ask whether cannabis can be used in place of prescription opioids for treatment of chronic pain.

Population-level studies

- Some population-level studies suggest states that permit medical cannabis have:
 - Lower mean annual opioid overdose mortality compared with states without medical cannabis laws¹;
 - A reduction in opioid-related deaths²;
 - A reduction in opioid prescriptions funded by Medicare Part D³;
 - Lower annual opioid prescribing rates for those receiving Medicaid.⁴
- However, a replication of this work with longer follow-up found increased rates of opioid overdose death among states that allow cannabis use, including those that permit recreational cannabis use.⁵
- The above studies have a primary limitation of being based on population-level data and do not track individuals over time.

Patient-level studies

- Analysis of data from 3 randomized clinical trials provides low-certainty evidence that adding medical cannabis was not associated with a reduction in opioid use for patients with chronic cancer pain.⁶
 - The major limitation of this work is patients enrolled in these trials were instructed not to alter their opioid doses. Although opioid doses did not markedly change, this may be due to the instructions that patients received.
- In open-label cohort studies of patients with chronic pain and no comparison group, new use of medical cannabis has shown to have significant decreases in the use of prescription opioid medications among patients with chronic noncancer pain.⁶ The average reduction was 22.5 mg morphine equivalents per day.
 - The findings are limited due to inconsistent results across studies, patient populations were highly selected,

and the review excluded studies of recreational cannabis use.

- Other prospective cohort studies have not shown cannabis reduced prescribed opioid use or rates of opioid discontinuation.^{7,8}

Clinical considerations

- The cannabis use characteristics in observational studies have varied widely, and we do not have enough information to recommend cannabis as an opioid alternative, or what doses, routes of administration, or formulations could be effective.
- A substantial proportion of recreational cannabis users also report use of cannabis for management of symptoms. We know very little about the extent that this type of “self-treatment” using cannabis is associated with reductions in prescription opioid use.
- Approximately 20-40% of patients prescribed long-term opioid therapy for chronic pain have co-occurring cannabis use. Clinical practice guidelines do not provide recommendations about

- Survey data suggest that some patients with chronic pain who receive medical cannabis report substituting cannabis for prescription.⁹⁻¹¹

whether to taper opioids in patients with co-occurring cannabis use. Clinicians’ opinions and practice characteristics vary substantially when addressing patients with co-occurring use.¹² When working with patients who use both prescription opioids and cannabis, it is recommended to work with the patient on goals for opioid and/or cannabis reduction and to be transparent about local health system policies regarding co-occurring use of both substances.

- For those with opioid use disorder, first-line pharmacotherapies remain buprenorphine, methadone, or naltrexone. There is interest and ongoing research examining the use of cannabis as a treatment for opioid use disorder, but most of the evidence to date is from pre-clinical studies.

Bottom line

- There are limited good-quality data with evidence for or against substituting prescription opioids with cannabis for the treatment of chronic pain.
- Several ecological studies suggest decreased opioid use and opioid-related harms in states that permit medical cannabis. However, other research has found the opposite.
- Self-report survey studies identify a substantial portion of patients who have

decreased prescription opioid use after starting medical cannabis.

- There are not good quality data from randomized trials to provide evidence in support of a clinical recommendation.
- Results from prospective cohort studies are mixed about whether cannabis use is associated with changes in prescription opioid use.

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