Practice Guidelines

Medical Cannabis or Cannabinoids for Chronic Pain: BMJ Rapid Recommendation

Key Points for Practice

- Non-inhaled medical cannabis or cannabinoids can slightly improve pain and physical functioning for people living with chronic cancer or non-cancer pain.
- Non-inhaled medical cannabis or cannabinoids may lead to a small improvement in sleep quality.
- Medical cannabis and cannabinoids commonly cause transient dizziness and, less frequently, cognitive impairment, nausea, vomiting, drowsiness, and impaired attention.

From the *AFP* Editors

Chronic pain that persists or recurs for three months or more affects approximately one in five people and is more common in women, older people, veterans, Indigenous people (i.e., American Indian, Alaska Native, and Aboriginal Canadian), and those who are socioeconomically disadvantaged. Cannabis, or marijuana, is the source for tetrahydrocannabinol (THC) and cannabidiol (CBD), which with other cannabis derivatives are termed cannabinoids. Non-inhaled medical cannabis or cannabinoid products contain cannabis extract or combinations of cannabinoids, usually THC and CBD. Cannabinoids vary in pharmacologic action, which is mediated through the intrinsic endocannabinoid system.

Cannabinoids are thought to affect pain through several pathways, including the endocannabinoid system. The multifaceted analgesic and anti-inflammatory mechanisms of cannabinoids may affect the perception of chronic pain. The BMJ/MAGIC Group performed a systematic review to determine the benefits of non-inhaled medical cannabis or cannabinoids in chronic cancer and non-cancer pain.

Benefits

The evidence for medical cannabis and cannabinoids covers a broad spectrum of pain conditions (i.e., neuropathic, nociceptive, and nociplastic), but studies primarily focus on older adults (mean age of 53 years).

The BMJ/MAGIC Group suggests a trial of non-inhaled medical cannabis or cannabinoids when chronic pain is not adequately controlled with standard care because of moderate to high certainty of small improvements in pain levels, sleep quality, and physical functioning. Non-inhaled medical cannabis or cannabinoids slightly improve pain levels, with a number needed to treat of 10 (95% CI, 7 to 20) to decrease average pain by 1 cm more on a 10-cm visual analog scale compared with placebo. These medications slightly improve sleep quality and physical functioning compared with placebo. Emotional functioning, role functioning, and social functioning do not improve with use of non-inhaled medical cannabis or cannabinoids compared with placebo treatment.

Harms

Most adverse events from use of non-inhaled medical cannabis and cannabinoids are transient and self-limited. Dizziness occurs frequently. The additional harms of cognitive disturbance, drowsiness, impaired attention, and nausea are less common. Evidence is insufficient to determine whether risks of these medicines include increases in risk of cannabis dependence, road traffic crashes leading to injury, falls, suicidal ideation, or suicide.

Uncertainties

Although this guideline was developed from studies of adults, the recommendations may apply to adolescents with treatments using CBD, which has more safety data over THC and does not alter mental state. Additionally, patients with concurrent mental illness, patients receiving disability benefits or end-of-life care, veterans, or

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This series is coordinated by Michael J. Arnold, MD, contributing editor.

A collection of Practice Guidelines published in *AFP* is available at https://www.aafp.org/afp/practguide.

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patients involved in litigation were not included in available studies. Evidence is lacking whether the use of medical cannabis or cannabinoids reduces opioid use.

These recommendations do not apply to use of inhaled medical cannabis or recreational cannabis, which have not been formally studied.

Prescribing Recommendations

Recommending medical cannabis or cannabinoids is limited by the lack of approved products or dosing, yet available studies provide some guidance. Physicians should consider starting with low-dose CBD products such as sprays, tablets, and sublingual oil drops at a dosage of 5 mg twice daily and increasing by 10 mg every two to three days to a maximum of 40 mg per day. THC-containing products can later be added at a starting dosage of 1 mg to 2.5 mg per day, with later titration by 1 mg to 2.5 mg every two to seven days up to a maximum dosage of 40 mg per day.

The views expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the Department of the Air Force, Uniformed Services University of the Health Sciences, Department of Defense, or the U.S. government.

Editor's Note: The numbers needed to treat were calculated by the authors based on data provided in the systematic review.

This BMJ/MAGIC guideline demonstrates the limited promise of cannabis and cannabinoids in treating chronic pain. Where there is moderately strong evidence of benefit, it still requires treating 10 people to get one person to have a 1-point improvement in their average pain score, and the improvements in sleep and physical functioning are also limited. With harms including cognitive disturbances, impaired attention, and nausea, these treatments likely have a positive benefit-to-risk ratio for only a minority of patients with chronic pain. This information may be helpful in advising our patients who live with chronic pain.—Michael J. Arnold, MD, Contributing Editor

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