

Guidance on the suggested use of medical cannabis

HIV/AIDS and chronic pain

About this document: The following information on the use of medical cannabis serves as a suggested use guide for those participating in the Utah Medical Cannabis Program. The intended audience for this document includes, pharmacy medical providers, patients intending to use medical cannabis, and caregivers of patients intending to use medical cannabis.

This document details the guidance on the use of medical cannabis for HIV/AIDS. This document does not include general instructions on the use of medical cannabis, contraindications, warnings, precautions and adverse reactions to using cannabis and drug-to-drug interactions which could be found in the extended guidance document titled *Guidance on the Suggested Use of Medical Cannabis*. The extended guidance document can be found on the Department of Health and Human Services Center for Medical Cannabis website (www.medicalcannabis.utah.gov).

About the authors: This document was authored by the Utah Cannabis Research Review Board and Department of Health and Human Services staff.

About the Utah Cannabis Research Review Board: Under Utah Health Code 26-61-201, the Cannabis Research Review Board is a board of medical research professionals and physicians who meet on a voluntary basis to review and discuss any available scientific research related to the human use of cannabis, cannabinoid product or an expanded cannabinoid product that was conducted under a study approved by an Institutional Review Board (IRB) or was conducted and approved by the federal government.

Guidance: There is **limited evidence** to support the conclusion that medical cannabis is effective for short-term treatment of symptoms of chronic painful HIV-associated neuropathy.

There is **insufficient evidence** to support the conclusion that oral cannabidiol is effective for treatment of symptoms of chronic painful HIV-associated neuropathy.

There is **limited evidence** to support the conclusion that oral cannabinoids are effective in increasing appetite and caloric intake. There is *insufficient evidence* that it increases body weight in HIV/AIDS wasting syndrome.

^a Developed using level of evidence categories from the 2017 National Academies of Sciences, Engineering, and Medicine report on cannabis (National Academies of Sciences, Engineering, and Medicine, 2017d).

Important note: In the event of significant adverse effects, stop use of medical cannabis until adverse effects have resolved, and then reduce to previous, best-tolerated dose. To avoid unwanted psychoactive adverse effects, “start low and go slow”, especially when using cannabis products for the first time or using new dosages or types of products.

Smoking cannabis is not permitted under the Utah health code. Any mention of smoking in this document refers to the method used for a particular study and is stated for your information only. The Department of Health and Human Services, the Cannabis Research Review Board, and the State of Utah do not promote smoking as a method of cannabis use.

Rationale

Symptoms associated with HIV infection include pain, headaches, reduced appetite, nausea, vomiting, weight loss, diarrhea, constipation, depression and anxiety. These symptoms occur as both direct and indirect consequences of the HIV infection and as well as side effects of antiretroviral drugs used to treat the disease. Uncontrolled observational questionnaire data involving 143 patients with HIV who also used cannabis suggest substantial subjective benefit from the use of cannabis to manage many of the above symptoms (Woolridge et al., 2005).

Controlled clinical trials showing a positive benefit of the use of medical cannabis to treat symptoms related to HIV are limited to short-term (5 days) treatment of painful peripheral neuropathy, and HIV/AIDS wasting syndrome.

In a 2007 study, 55 patients with HIV-related painful sensory neuropathy were randomized in a blinded fashion to smoke a 0.9 gm cannabis cigarette three times per day over five

days containing 3.6% THC (active treatment), or an identical appearing 0.9 gm cannabis cigarette in which the THC had been chemically extracted (placebo). Patients receiving active treatment reported a 34% reduction in HIV-related neuropathic pain compared to 17% reduction for placebo. (Abrams et al., 2007).

In a 2020 crossover, double blinded, randomized study, 32 patients with HIV neuropathy received cannabidiol (CBDV) 400 mg or placebo for 4 weeks with a 3 week washout period. There was no difference in pain intensity between CBDV and placebo treatment phases (Eibach 2020).

A systematic review published in 2015 identified four randomized controlled trials involving 255 patients with HIV/AIDS wasting syndrome. All four studies included dronabinol, with one investigating inhaled cannabis as well. Three trials were placebo-controlled, and one used the progestational agent, megestrol acetate, as the comparator. The review authors concluded that there was some evidence suggesting that cannabinoids were effective in causing weight gain in patients with HIV/AIDS (Whiting et al., 2015). However, these studies were conducted in the 1990s and it is unknown whether patients taking modern antiretroviral therapy (ART) would experience the same benefit.

While available evidence suggests clinically significant drug-drug interactions between ART and cannabinoids, robust evidence is lacking. Use a drug interaction tool or consult with a pharmacist when stopping, starting, or changing the dose of an ART agent or cannabinoid.

Guidance: There is **moderate evidence** to support the conclusion that medical cannabis and cannabinoids can have clinically significant beneficial effects in the management of chronic pain, particularly pain that is due to nerve damage or neuropathy. This is based on supportive findings from good to fair quality controlled clinical trials with very few opposing findings.

^a Developed using level of evidence categories from the 2017 National Academies of Sciences, Engineering, and Medicine report on cannabis (National Academies of Sciences, Engineering, and Medicine, 2017d).

For discussion of use of cannabinoids for chronic pain, [see chronic pain guidance document](#).

References

1. Abrams, D. I., Jay, C. A., Shade, S. B., Vizoso, H., Reda, H., Press, S., ... Petersen, K. L. (2007). Cannabis in painful HIV-associated sensory neuropathy: A randomized placebo-controlled trial. *Neurology*, 68(7), 515–521. doi: 10.1212/01.wnl.0000253187.66183.9c
2. Andrae, M. H., Carter, G. M., Shaparin, N., Suslov, K., Ellis, R. J., Ware, M. A., ... Sacks, H. S. (2015). Inhaled Cannabis for Chronic Neuropathic Pain: A Meta analysis of Individual Patient Data. *The Journal of Pain*, 16(12), 1221–1232. doi: 10.1016/j.jpain.2015.07.009
3. Grant, I. (2013). Medicinal Cannabis and Painful Sensory Neuropathy. *AMA Journal of Ethics*, 15(5), 466–469. doi:10.1001/virtualmentor.2013.15.5.oped1-1305
4. Health Canada. (2018). Information for Health Care Professionals - Cannabis (marihuana, marijuana) and the cannabinoids. Retrieved from <https://www.canada.ca/content/dam/hc-sc/documents/services/drugs/medication/cannabis/information-medical-practitioners/information-health-care-professionals-cannabis-cannabinoids-eng.pdf>
5. Maccallum, C. A., & Russo, E. B. (2018). Practical considerations in medical cannabis administration and dosing. *European Journal of Internal Medicine*, 49, 12–19. doi: 10.1016/j.ejim.2018.01.004
6. Portenoy, R. K., Ganae-Motan, E. D., Allende, S., Yanagihara, R., Shaiova, L., Weinstein, S., ... Fallon, M. T. (2012). Nabiximols for Opioid-Treated Cancer Patients With Poorly-Controlled Chronic Pain: A Randomized, Placebo Controlled, Graded-Dose Trial. *The Journal of Pain*, 13(5), 438–449. doi: 10.1016/j.jpain.2012.01.003
7. Russo, E. B. (2011). Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects. *British Journal of Pharmacology*, 163(7), 1344–1364. doi: 10.1111/j.1476-5381.2011.01238.x
8. The National Academies of Sciences, Engineering, and Medicine. (2017a). The health effects of cannabis and cannabinoids: the current state of evidence and recommendations for research. (Ch. 4-1). Doi: <https://doi.org/10.17226/24625>
9. The National Academies of Sciences, Engineering, and Medicine. (2017b). The health effects of cannabis and cannabinoids: the current state of evidence and recommendations for research. doi: <https://doi.org/10.17226/24625>
10. Whiting, P. F., Wolff, R. F., Deshpande, S., Nisio, M. D., Duffy, S., Hernandez, A. V., ...

Kleijnen, J. (2015). Cannabinoids for Medical Use. *Jama*, 313(24), 2456.
doi:10.1001/jama.2015.6358

11. Woolridge, E., Barton, S., Samuel, J., Osorio, J., Dougherty, A., & Holdcroft, A. (2005). Cannabis Use in HIV for Pain and Other Medical Symptoms. *Journal of Pain and Symptom Management*, 29(4), 358–367. doi: 10.1016/j.jpainsymman.2004.07.011
12. Zajicek, J. P., Hobart, J. C., Slade, A., Barnes, D., & Mattison, P. G. (2012). Multiple Sclerosis and Extract of Cannabis: results of the MUSEC trial. *Journal of Neurology, Neurosurgery & Psychiatry*, 83(11), 1125–1132. doi: 10.1136/jnnp-2012-302468

DISCLAIMER

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This document is a summary of available peer-reviewed literature concerning potential therapeutic uses and harmful effects of cannabis and cannabinoids. With the ongoing nature of cannabis and cannabinoid research, it is not meant to be complete or comprehensive and should be used as a limited complement to other reliable sources of information. This document is not a systematic review or meta-analysis of the literature and has not rigorously evaluated the quality and weight of the available evidence. There is a lack of controlled clinical trials yielding high level evidence of predictable therapeutic benefit for any given condition other than those for FDA approved formulations. This document includes warnings and risks related to the use of cannabis including cannabis use disorder, potentially irreversible brain damage/mental illness, and legal liability for DUI and potential for adverse work-related consequences.

All patrons participating in the Utah Medical Cannabis Program are advised to use this document and any such document produced from this original document as informational and educational. The use of medical cannabis is at one's own risk. **Medical cannabis is NOT a first line therapy for most medical conditions.**

The information in this document is intended to help as far as available data allows Utah health care decision-makers, health care professionals, health systems leaders, and Utah Medical Cannabis patients to make well-informed decisions and thereby improve the quality of health care outcomes in patients using medical cannabis use. While patients and others may access this document, the document is made available for informational purposes only and no representations or warranties are made with respect to its fitness for any particular purpose. The information in this document should not be used as a substitute for professional medical advice or as a substitute for the application of clinical judgment in respect of the care of a particular patient or other professional judgment in any decision-making process.

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