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Cannabis and Cannabinoids in Adults With Cancer: ASCO Guideline Q&A

Ilana M. Braun, MD[1]; Kari Bohlke, ScD[2]; and Eric J. Roeland, MD[3]

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In 2024, ASCO published a guideline on the use of cannabis and cannabinoids by adults with cancer.[1] The guideline provides strategies for open, nonjudgmental communication and also discusses evidence regarding cannabis and cannabinoids as cancer-directed therapy and for managing cancer symptoms and treatment side effects. Figure 1 presents the guideline recommendations.[1] This companion Questions and Answers article addresses some of the questions clinicians may have as they implement the guideline recommendations.

QUESTION 1: SHOULD CLINICIANS REFRAIN FROM ADDRESSING CANNABIS AND/OR CANNABINOIDS WITH ADULTS WITH CANCER?

No.

Data suggest that 20% to over 40% of adults with cancer consume cannabis products.[2-7] Given the high prevalence of cannabis use among adults with cancer, ASCO's guideline offers the following good practice statement: Clinicians should routinely and nonjudgmentally inquire about cannabis use (or consideration of cannabis use), and either guide care or direct adults with cancer to appropriate resources. The full guideline offers suggestions for taking a cannabis and/or cannabinoid history.[1]

QUESTION 2: DOES THE USE OF CANNABIS OR CANNABINOIDS CARRY RISKS?

Yes.

Common side effects of tetrahydrocannabinol (THC)-based products include dizziness, mild confusion, dry mouth, and fatigue; more serious side effects include tachycardia, orthostatic hypotension, severe confusion, and paranoia. To minimize adverse effects from THC-based products, particularly in older adults and in those naïve to cannabis and/or cannabinoids, such products should be started at a low dose and titrated slowly. Notably, adults with cancer who ingest excessive amounts of cannabis and/or cannabinoids are not at risk for respiratory depression, as might occur with overdoses of opioids.

QUESTION 3: DOES CANNABIS' ONSET AND DURATION OF ACTION DIFFER BETWEEN THE ROUTES OF ADMINISTRATION?

Yes.

The effects of *combusted* or *vaporized* THC-predominant products occur in seconds to minutes, and last 2-3 hours. In contrast, due to first-pass metabolism, the onset of *oral* THC-predominant products is variable, from 30 minutes to 2 hours, and may last from 5 to 8 hours.[8,9] These differences may have important implications for symptom relief and safety. Adults with cancer new to oral cannabis and/or cannabinoid products should recognize that the onset of action may be >1 hour and cautioned to avoid stacking doses, which could lead to side effects as mentioned above (eg, dizziness, confusion, fatigue, paranoia, tachycardia, orthostatic hypotension).[10,11]

Recommendation	Type	Evidence Quality	Strength
1.1. Health systems and clinicians, in partnership, should provide adults with cancer unbiased, evidence-based cannabis and/or cannabinoid educational resources to facilitate clinical communication, informed decision-making, and systematized approaches to care.	Good Practice Statement		
1.2. Given the high prevalence of cannabis and/or cannabinoid use among adults with cancer, clinicians should routinely and non-judgmentally inquire about cannabis use (or consideration of use), and either guide care or direct adults with cancer to appropriate resources.	Good Practice Statement		
Note. Clinicians should remain sensitive to cannabis regulations' disproportionate impacts on marginalized communities and work to omit cannabis-related and other biases (eg, racial, ethnic, and socioeconomic) from clinical discussions about cannabis and/or cannabinoids. Table 1 offers suggestions for cannabinoid history-taking.			
1.3. When adults with cancer use cannabis and/or cannabinoids outside of evidence-based indications or clinician recommendations, clinicians should explore goals, educate, and seek to minimize harm.	Good Practice Statement		
2.1. Clinicians should recommend against use of cannabis and/or cannabinoids to augment cancer-directed treatment unless in the context of a clinical trial.	EB	VL	W
2.2. Clinicians should recommend against use of cannabis and/or cannabinoids in place of cancer-directed treatment.	IC	VL	S
Note. Cannabis and/or cannabinoids used as cancer-directed treatment may cause significant clinical (eg, fatigue, confusion, feeling "high") and financial toxicities without good quality evidence of clinical benefit.			
3.1. Adults with cancer who receive moderately or highly emetogenic antineoplastic agents with guideline-concordant antiemetic rophylaxis and experience refractory nausea or vomiting may augment their antiemetic regimen with dronabinol, nabilone, or a quality-controlled oral 1:1 THC:CBD extract.	EB	M for dronabinol and nabilone L for 1:1 THC:CBD extract	W
Note. Cannabis and/or cannabinoids are one of several pharmacologic options for adults with cancer experiencing refractory nausea and vomiting despite optimal prophylaxis. For such individuals, the 2020 ASCO antiemetics guideline recommends the addition of olanzapine (if not already prophylactically administered); otherwise, the addition of an antiemetic from a different class (eg, a neurokinin-1 receptor antagonist, dopamine receptor antagonist, benzodiazepine, or synthetic THC).			
3.2. Outside of a clinical trial, clinicians should not recommend that adults with cancer use 300 mg or more per day of oral CBD to manage symptom burden due to lack of proven efficacy and risk for reversible liver enzyme abnormalities.	EB	L	W
Note. In adult and pediatric populations without cancer, reversible liver enzyme abnormalities primarily occurred in study participants taking 300 mg or more per day of oral CBD.			
3.3. Evidence remains insufficient to recommend for or against cannabis and/or cannabinoids in managing cancer treatment-related toxicities or symptoms (including cancer pain), aside from clinical settings addressed in Recommendations 3.1 and 3.2 or within the context of a clinical trial (Table 2 in the full guideline).	NR	Ins	NA

FIG 1. Summary of cannabis and cannabinoids in adults with cancer recommendations. CBD, cannabidiol; EB, evidence-based; IC, informal consensus; Ins, insufficient; L, low; M, moderate; NA, not applicable; NR, no recommendation; S, strong; THC, tetrahydrocannabinol; VL, very low; W, weak.

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QUESTION 4: DO CANNABIS OR CANNABINOIDS INTERACT WITH STANDARD THERAPIES COMMONLY USED IN THE CANCER SETTING?

Yes.

Pharmacodynamic drug-drug interactions with cannabis may occur in the cancer setting. For instance, cannabis may exacerbate the neuropsychiatric effects of opioids. In addition, results from two oncologic cohort studies suggest that cannabis, a known immune modulator, may worsen immunotherapy outcomes, including the median time to progression and overall survival.[12,13] However, due to the limitations of cohort analyses, this hypothesis requires further prospective validation.

Although cannabis modulates the cytochrome P450 family of enzymes, a scientific review reported a generally low probability of clinically relevant *pharmacokinetic* drug-drug interactions.[14] Yet, drug interactions with warfarin were classified as very high risk and buprenorphine and tacrolimus as high risk, all requiring careful monitoring.[14] Additionally, reversible liver enzyme elevations may occur with cannabidiol (CBD)-predominant products at doses of 300 mg or more per day.[15] Therefore, clinicians should specifically ask adults with cancer about CBD use and educate them about this potential risk, especially when cancer-directed therapy is associated with hepatotoxicity.

QUESTION 5: SHOULD CANNABIS BE USED WITH THE INTENT TO TREAT CANCER?

No.

Adults with cancer using cannabis or cannabinoids should understand that the clinical evidence to support their use as cancer-directed therapy in humans is lacking. In addition, preliminary observational data suggest poor clinical outcomes for adults receiving immunotherapy who use cannabis.[12,13] For these reasons, clinicians should discourage adults with cancer from using cannabis and/or cannabinoids to augment their standard-of-care cancer-directed therapy. Notably, clinicians should strongly discourage substituting cannabis and/or cannabinoids for standard cancer-directed treatment.

QUESTION 6: CAN CANNABIS AND/OR CANNABINOIDS IMPROVE CANCER SIDE EFFECTS OR SYMPTOMS?

Yes.

While high-quality clinical evidence evaluating cannabis and/or cannabinoids in the cancer setting is limited, weak evidence supports the practice of using cannabis and/or cannabinoids to address refractory chemotherapy-induced nausea and vomiting when standard, evidence-based approaches are ineffective.[16,17] Weak, negative, conflicting, or no evidence exists for other potential indications for oncologic cannabis and/or cannabinoids, including the management of cancer-related pain. However, a 2017 monograph published by the National Academies of Science, Engineering, and Medicine concluded there is substantial evidence that cannabis is an effective treatment for chronic *noncancer* pain in adults.[18]

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AFFILIATIONS

[1]Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA
[2]American Society of Clinical Oncology, Alexandria, VA
[3]Oregon Health and Science University, Knight Cancer Institute, Portland, OR

CORRESPONDING AUTHOR

American Society of Clinical Oncology, 2318 Mill Rd, Ste 800, Alexandria, VA 22314; e-mail: guidelines@asco.org.

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AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

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Ilana M. Braun
Honoraria: Elimu Informatics

Eric J. Roeland
Consulting or Advisory Role: Napo Pharmaceuticals, Byomass, Veloxis, PRA Health, Actimed Therapeutics, Takeda, meter health
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