

# Canadian Guidelines on Cannabis Use Disorder Among Older Adults



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## ABSTRACT

### Background

Cannabis Use Disorder (CUD) is an emerging and diverse challenge among older adults.

### Methods

The Canadian Coalition for Seniors' Mental Health, with financial support from Health Canada, has produced evidence-based guidelines on the prevention, identification, assessment, and treatment of this form of substance use disorder.

### Conclusions

Older adults may develop CUD in the setting of recreational and even medical use. Clinicians should remain vigilant for the detection of CUD, and they should be aware of strategies for prevention and managing its emergence and consequences. The full version of these guidelines can be accessed at [www.ccsmh.ca](http://www.ccsmh.ca).

**Key words:** cannabis, substance use disorder, older adults

## INTRODUCTION

In Canada, cannabis use rates in older adults have been rising over the last decade as baby boomers age into their older years and supply has become more readily available.<sup>(1)</sup> One study showed the percentage of older adults using cannabis

in Ontario doubled from 2005–2015, and has increased five-fold since 1977.<sup>(2)</sup> This intersects with the growing trend of cannabis use for therapeutic purposes, which has become a topic of great interest in recent years. Increased attention has been paid to the many product types available (e.g., dried product, oils, edible cannabis), as well as their effects. However, evidence is limited with regard to the potential benefits and harms of cannabis use, especially among older adults. Those who were born between 1946–1964, many of whom are now older adults, have higher lifetime prevalence of use and past-year use than any generation that precedes them.<sup>(3)</sup>

It is critical for clinicians to make their patients and clients aware that there are potential risks related to cannabis use, and medical evidence that use of cannabis (and, more specifically, certain cannabinoids) may be beneficial for only a small number of clinical indications, including chronic neuropathic pain, nausea and vomiting due to chemotherapy, seizures, spasticity in multiple sclerosis, and stimulation of appetite in patients with severe weight loss due to AIDS and possibly cancer.<sup>(4,5)</sup> There is a growing, but relatively small, body of evidence which is supportive of some other possible indications.<sup>(6)</sup> However, evidence is limited with regard to the potential benefits and harms of cannabis use, especially among older adults. This lack of evidence and increased lifetime exposure of many adults, coupled with the recent legalization of non-medical cannabis use in Canada and subsequent increase in public interest, have driven concern for potential problematic cannabis use and cannabis use disorder (CUD)

among older adults. The pace and scope of cannabis research may require clinical recommendations, and recommendations such as those below, to be updated and modified more frequently than other clinical guidelines.

The Canadian Coalition for Seniors' Mental Health (CCSMH), with financial support from the Substance Use and Addictions Program of Health Canada, has created a set of four guidelines on the prevention, assessment, and management of substance use disorders among older adults for alcohol, benzodiazepine receptor agonists (BZRAs), cannabis, and opioids. This article deals with the Cannabis Use Disorder guidelines.

## METHODS

The CCSMH CUD Guideline Development Working Group was created to lead the process. Jonathan Bertram, Amy Porath and Dallas Seitz were appointed as co-leads of the group. Group membership was based on willingness to commit to the project and possessing either the required expertise or having a lived experience perspective. The final composition of the Guideline Development Working Group members was guided by ensuring diversity in age, gender, disciplinary background, and geographic distribution across Canada.

Members volunteered to focus on one section—prevention, screening, assessment, and treatment of cannabis use disorder. Within these broad areas they assumed leadership roles in assessing and creating recommendations to deal with specific topics. This process was guided by systematic searches of databases to identify relevant literature that was then reviewed by guideline development working group members. A series of in-person and videoconferences were held to maintain progress, discuss emerging issues, refine recommendations, ensure consistency, and identify gaps. A modified version of the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) methodology was utilized to first assess (and score) the quality of the available evidence for each recommendation (based on consideration of study design and quality of available studies, applicability to the question being addressed, and confidence in the estimate of the effect); and secondly to assess its overall strength, which took into account additional factors such as the balance between benefit and harm, patient values and preferences, and whether this would be a wise use of the required resources for implementation (see Box 1).<sup>(7)</sup> A separate category was created for recommendations that were not primarily based on empirical evidence, but represented best clinical practice. They were categorized as consensus recommendations.

Members of the guideline working group voted on all recommendations. For a recommendation to be adopted, it had to achieve consensus approval (75%+ affirmative vote by members of the CUD Guideline Development Working Group). They were able to discuss until they reached 100% member consensus on each recommendation. Details on the methodology used are available at the following link: <https://ccsmh.ca/substance-use-addiction/intro/>

## BACKGROUND

Cannabis use disorder refers to a problematic pattern of cannabis use leading to clinically significant impairment or distress. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), Cannabis Use Disorder (CUD) is a problematic pattern of cannabis use leading to clinically significant impairment or distress as manifested by at least two of the following occurring in a 12-month period:<sup>(8)</sup>

1. Cannabis is often taken in larger amounts over a longer period than was intended.
2. There is a persistent desire or insignificant effort to cut down or control cannabis use.
3. A great deal of time is spent in activities necessary to obtain cannabis, use cannabis, or recover from its effects.
4. Craving or a strong desire or urge to use cannabis.
5. Recurrent cannabis use resulting in failure to fulfill major role obligations at work, school, or home.
6. Continued cannabis use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of cannabis.
7. Important social, occupational, or recreational activities are given up or reduced because of cannabis use.
8. Recurrent cannabis use in situations which are physically hazardous.
9. Cannabis use is continued despite knowledge of having persistent or recurrent physical or psychological problems that are unlikely to have been caused or exacerbated by cannabis.

### BOX 1. Scoring of the Quality of Evidence and Strength of Recommendation (based on GRADE approach)

#### Quality of Evidence

- High: Further research is unlikely to change confidence in the estimate of effects
- Medium: Further research is likely to have an important impact on the confidence in the estimate of effect and may change the estimate
- Low: Further research is very likely to have an important impact on the confidence in the estimate of effect and may change the estimate

#### Strength of Recommendation

- Strong: Indicate high confidence that desirable consequences of the proposed course of action outweigh the undesirable consequences (or vice versa)
- Weak: Indicate that there is either a close balance between benefits and downsides (including adverse effects and burden of treatment), uncertainty regarding the magnitude of benefits and downsides, uncertainty or great variability in patients' values and preferences, or that the cost or burden of the proposed intervention may not be justified

10. Tolerance, as defined by either:
  - a need for markedly increased amounts of cannabis to achieve intoxication and desired effect, or
  - a markedly diminished effect with continued use of the same amount of cannabis.
11. Withdrawal, as manifested by either the characteristic withdrawal symptoms for cannabis, or a closely related substance is taken to relieve or avoid withdrawal symptoms.

The number of criteria present determines the severity of the use disorder (i.e., 2-3 = mild, 4-5 = moderate, 6+ = severe).

The assessment of cannabis use disorder in older adults is marked uniquely by a diversity of modes of use (including ingesting, smoking, vaping, and topicals), as well as a broad range of frequency and dosage, both in the recreational and medical markets. Age-related pharmacokinetic and pharmacodynamic changes can have an impact on varying withdrawal symptoms in older adults, as well as the presentation of cannabis hyperemesis syndrome.<sup>(9)</sup>

Cannabis is a plant that contains hundreds of compounds, including cannabinoids which act on the endogenous cannabinoid (endocannabinoid) system. Certain cannabinoids act by influencing reward, motivation, and substance-related cues. Notably, delta-9-tetrahydro-cannabinol (THC) and cannabidiol (CBD) are two cannabinoids that have been studied the most. They exert various effects by binding to the cannabinoid receptors CB1 which is located centrally in the brain, and CB2 which is located primarily peripherally and on the circulating immune system throughout the body. The primary psychoactive ingredient in cannabis is THC, which mimics the endocannabinoid anandamide and binds to cannabinoid 1 (CB1) receptors in the brain, often producing a high or sense of euphoria. CBD binds weakly to CB1 receptors and may interfere with the binding of THC, resulting in a lack of euphoric and reinforcing effect.<sup>(10)</sup> Also, CBD has been shown to be an agonist similar to another endocannabinoid, 2-AG, and binds primarily to CB2 receptor sites. It is important to note that the cannabinoid composition of a cannabis plant is wide ranging and varies by strain. Some are higher in CBD and others contain more THC. In this article, we use the term cannabis, CBD, and THC. The recommendations made deal with cannabis generally, with specifications for CBD and THC where appropriate, per the evidence.

## KEY CLINICAL RECOMMENDATIONS

The twenty-two recommendations contained in the guideline are included in Box 2 (which includes the GRADE score for each recommendation). In this summary we focus on those felt to be of greatest utility for practitioners. These key recommendations, as well as the rationale for them and mention of other supporting recommendations, are reviewed below:

**Recommendation #1:** Cannabis should generally be avoided by older adults who have:

- a) A history of, or are currently experiencing, mental health disorders, problematic substance use, or substance use disorder (SUD).
- b) Cognitive impairment, cardiovascular disease, cardiac arrhythmias, coronary artery disease, unstable blood pressure, or impaired balance. Regular cannabis smoking can lead to chronic bronchitis and respiratory symptoms.<sup>(11)</sup> Cannabis in other forms may cause osteoporosis, and cannabis can impair cognitive and motor functions.<sup>(12)</sup> Clinical case reports and case series have indicated that regular cannabis use can be associated with stroke even among younger adults without other known risk factors.<sup>(13,14)</sup> The potential benefits of cannabis in certain limited situations where it is medically indicated (e.g., treatment of nausea due to chemotherapy) need to be balanced against these potential risks. There is strong evidence that persons with CUDs have an increased risk of developing alcohol, tobacco, or other SUDs.<sup>(15)</sup> Additionally, older adults with other substance use or alcohol use disorders have an increased risk of developing a CUD. Cannabis can precipitate or aggravate mental health conditions such as psychosis, depression, and anxiety.

**Recommendation #2:** Clinicians should be aware of the following:

- a) The current evidence base on the medical use of cannabis is relatively limited, and cannabis and most derivative products have not been approved as therapeutic agents by Health Canada, with the exception of two pharmaceutical-grade cannabinoid products (see below). Clinicians should keep informed about new evidence regarding possible indications and contraindications for cannabis and cannabinoid use.
- b) The common symptoms and signs associated with cannabis use, cannabis-induced impairment, cannabis withdrawal, CUD, and common consequences of problematic cannabis use.
- c) The potential adverse effects of cannabis use in older adults, such as changes in depth perception risking balance instability and falls, changes in appetite, cognitive impairment, cardiac arrhythmia, anxiety, panic, psychosis, and depression.
- d) Mental health disorders which are commonly comorbid with CUD such as depression, anxiety, and schizophrenia/psychosis.

Even though cannabis for medical purposes is legal under the Cannabis Act, Health Canada does not make health claims about the medical use of cannabis or any health benefits associated with it.<sup>(12)</sup> Thus, dried cannabis (leaves, buds, seeds) and derivative products (oils, butter, waxes, “shatter”, and edible cannabis) have not been approved as therapeutic agents by Health Canada and are not available on prescription. Clinicians should keep informed about new evidence regarding possible indications or contraindications for use of these products. The only Health Canada-approved cannabinoid products are nabilone (Cesamet<sup>®</sup>), which is synthetic THC, and nabiximols (Sativex<sup>®</sup>). A comprehensive

**BOX 2. Recommendations**

**Recommendation #1:** Cannabis should generally be avoided by older adults who have:

- a) A history of, or are currently experiencing, mental health disorders, problematic substance use, or Substance Use Disorder (SUD). [GRADE: Evidence: Moderate; Strength: Strong]
- b) Cognitive impairment, cardiovascular disease, cardiac arrhythmias, coronary artery disease, unstable blood pressure, or impaired balance. [GRADE: Evidence: Moderate; Strength: Strong]

**Recommendation #2:** Clinicians should be aware of the following:

- a) The current evidence base on the medical use of cannabis is relatively limited, and cannabis and most derivative products have not been approved as therapeutic agents by Health Canada, with the exception of two pharmaceutical grade cannabinoid products. Clinicians should keep informed about new evidence regarding possible indications and contraindications for cannabis and cannabinoid use. [GRADE: Evidence: High; Strength: Strong]
- b) The common signs and symptoms associated with cannabis use, cannabis-induced impairment, cannabis withdrawal, CUD, and common consequences of problematic cannabis use. [GRADE: Evidence: High; Strength: Strong]
- c) The potential adverse effects of cannabis use in older adults, such as changes in depth perception risking balance instability and falls, changes in appetite, cognitive impairment, cardiac arrhythmia, anxiety, panic, psychosis, and depression. [GRADE: Evidence: Moderate; Strength: Strong]
- d) Mental health disorders which are commonly comorbid with CUD such as depression, anxiety, and schizophrenia/psychosis. [GRADE: Evidence: Moderate; Strength: Strong]

**Recommendation #3:** In order to support the retention of information, clinicians should provide education and counselling with regard to cannabis and cannabinoids to older patients and their family members/caregivers both verbally and in writing. [Consensus]

**Recommendation #4:** Clinicians should counsel patients, caregivers, and families to be aware that older adults can be more susceptible than younger adults to some dose-related adverse events associated with cannabis use. [GRADE: Evidence: High; Strength: Strong]

**Recommendation #5:** Clinicians should advise patients, caregivers, and families about potentially increased risks associated with higher potency delta-9-tetrahydro-cannabinol (THC) extracts, or higher potency strains of cannabis when compared to those with lower THC content. [GRADE: Evidence: Low; Strength: Strong]

**Recommendation #6:** Clinicians should advise patients, caregivers, and families of risks associated with different modes of use of cannabis and cannabis products (e.g., smoking, vaporizing, oils, sprays, etc.) and counsel patients on these risks. [GRADE: Evidence: Moderate; Strength: Strong]

**Recommendation #7:** Clinicians should educate patients to avoid illegal synthetic cannabinoids (e.g., K2 and SPICE,) because of the potential to cause serious harm. [GRADE: Evidence: Low; Strength: Strong]

**Recommendation #8:** Clinicians should educate patients on the risk of cannabis-induced impairment especially if the patient is cannabis-naïve or titrating to a new dose. It is recommended that the starting dose should be as low as possible and gradually increased over time if needed. [GRADE: Evidence: High; Strength: Strong]

**Recommendation #9:** Clinicians should counsel patients on the potential long-term effects of frequent cannabis use including respiratory problems, precancerous epithelial changes, and cognitive impairment. Patients should also be counselled on the risk of exacerbation of mental health conditions with CUD, especially when high THC strains are used. [GRADE: Evidence: Moderate; Strength: Strong]

**Recommendation #10:** Clinicians should advise patients, caregivers, and families that:

- a) Cannabis may impair the ability to safely drive a motor vehicle for up to 24 hours. [GRADE: Evidence: High; Strength: Strong]
- b) The use of both cannabis and alcohol together results in synergistic impairment, increases risks for driving, and should be avoided. [GRADE: Evidence: High; Strength: Strong]
- c) It is dangerous to ride as a passenger with a driver who has used cannabis within the previous 24 hours. [GRADE: Evidence: High; Strength: Strong]

**Recommendation #11:** Patients, caregivers, and families should be provided with information about the signs, symptoms, and risks of cannabis withdrawal. [GRADE: Evidence: High; Strength: Strong]

**Recommendation #12:** Clinicians should initiate non-judgmental discussions related to cannabis and cannabinoid use. Careful histories should be obtained from patients, caregivers, and families about signs and symptoms of CUD that may be similar to those of age-related nervous system changes, such as drowsiness, dizziness, memory impairment, and falls. [GRADE: Evidence: High; Strength: Strong]

**Recommendation #13:** All patients regardless of age should be screened for:

- a) The use of non-medical and medically authorized cannabis and cannabinoids, and illicit synthetic cannabinoids as well as tobacco, alcohol, and other drugs. [GRADE: Evidence: Low; Strength: Strong]
- b) The amount and type of cannabis or cannabinoid used, and its frequency, by those who acknowledge any use. Those who acknowledge any *recent* use (any in the past month) should then go on to targeted screening using the Cannabis Use Disorder Identification Test (CUDIT). [GRADE: Evidence: Low; Strength: Strong]

**Recommendation #14:** Clinicians should be aware that the diagnostic accuracy of some screening tools may be variable

given that some of the symptoms of aging may overlap with those of CUD. [GRADE: Evidence: Moderate; Strength: Weak]

**Recommendation #15:** Assessment of CUD in older adults should evaluate:

- a) Modes of use: i.e., ingesting, smoking, vaping, use of extracts, topicals, nabilone, and nabiximols, etc., and consider the risks/benefits/harms of all that apply to the patient. [GRADE: Evidence: High; Strength: Strong]
- b) Frequency and dosage. [GRADE: Evidence: High; Strength: Strong]

**Recommendation #16:** Clinical assessment of CUD in older adults should evaluate the signs and symptoms of cannabis withdrawal, with consideration that the rapid reduction or abrupt discontinuation of cannabis use may also be associated with withdrawal symptoms. [GRADE: Evidence: High; Strength: Strong]

**Recommendation #17:** When assessing patients, clinicians should be aware of the risk of cannabis hyperemesis syndrome in association with chronic cannabis use, especially with higher potency preparations. [GRADE: Evidence: High; Strength: Strong]

**Recommendation #18:** The Screening, Brief Intervention, and Referral to Treatment (SBIRT) approach should be considered for assessing and managing CUD similarly to other SUDs. [GRADE: Evidence: Low; Strength: Strong]

**Recommendation #19:** Peer support programs should be considered for individuals with CUD. [GRADE: Evidence: Moderate; Strength: Strong]

**Recommendation #20:** It is recommended that a variety of psychosocial approaches be considered for harm reduction or relapse prevention including: Cognitive Behavioural Therapy (CBT), Motivational Interviewing (MI), Mindfulness Based Relapse Prevention (MBRP), Motivational Enhancement Therapy (MET), and Contingency Management (CM). [GRADE: Evidence: Moderate; Strength: Strong]

**Recommendation #21:** There are currently no established pharmacological treatments that have been demonstrated to be safe and effective for either cannabis withdrawal symptoms or CUD. [Consensus]

**Recommendation #22:** Accredited residential treatment should be considered as appropriate for treating CUD if the individual is unable to effectively reduce or cease their cannabis use. [GRADE: Evidence: Low; Strength: Strong]

systematic review conducted in 2017<sup>(4)</sup> identified only three conditions for which there is conclusive or substantial evidence that cannabis or cannabinoids are effective in treating specific symptoms: multiple sclerosis, nausea and vomiting associated with chemotherapy, and chronic pain, especially of neuropathic origin.<sup>(5)</sup> It is important to review the specific risks associated with cannabis use on an individual basis and with family members/caregivers (**Recommendation 3**). This may include vigilance around the greater susceptibility to dose-related adverse events (**Recommendation 4**), and education on the risks associated with higher potency strains or extracts of cannabis, especially THC (**Recommendation 5**), as well as modes of use (smoking, vaping, oils, sprays) (**Recommendation 6**).

**Recommendation #8:** Clinicians should educate patients on the risk of cannabis-induced impairment, especially if the patient is cannabis-naïve or titrating to a new dose. It is recommended that the starting dose should be as low as possible and gradually increased over time, if needed.

Initiation of cannabis for medical or non-medical use can result in physiological, cognitive, perceptual, and emotional changes leading to functional impairment. The risk of impairment with cannabis is increased with formulations containing higher concentrations of THC. Use of cannabis products with THC concentrations of >20% under any circumstance is unwarranted. A conversation on avoiding illegal synthetic cannabinoids (**Recommendation 7**) and providing counseling on the serious downstream consequences and potential long-term effects of frequent cannabis use would also be appropriate at this time (**Recommendation 9**).

**Recommendation #10:** Clinicians should advise patients, caregivers, and families that:

- a) Cannabis may impair the ability to safely drive a motor vehicle for up to 24 hours.
- b) The use of both cannabis and alcohol together results in synergistic impairment, increases risks for driving, and should be avoided.
- c) It is dangerous to ride as a passenger with a driver who has used cannabis within the previous 24 hours.

A recent systematic review showed the odds ratio of a motor vehicle collision after using cannabis was between 2.49–2.84.<sup>(16)</sup> Of note, the effects of CBD on driving are not well known and, currently, most of the evidence on driving impairment is related to THC use.<sup>(17)</sup> It has been recommended not to use cannabis (with any concentration of THC and/or CBD) within 24 hours of safety sensitive work and 28 days of safety critical work.<sup>(16)</sup> Due to the variation of effects of THC on driving as THC/CBD formulations change, it is essential to note that the consumption of cannabis and alcohol together will have a synergistic effect on impairment, and that those who may be below the legal allowable blood alcohol levels may still be unsafe to operate a motor vehicle when alcohol is consumed with cannabis.<sup>(18)</sup>

**Recommendation #11:** Patients, caregivers, and families should be provided with information about the signs, symptoms, and risks of cannabis withdrawal. Cannabis withdrawal symptoms will be more pronounced with abstinence after long-term use of higher amounts of cannabis. Typical

symptoms of withdrawal include fluctuating behavior, and mood and physical symptoms such as weakness, sweating, restlessness, dysphoria, sleeping problems, decreased appetite, nervousness/anxiety, irritability, aggression, and craving.

**Recommendation #13:** All patients regardless of age should be screened for:

- a) The use of non-medical and medically authorized cannabis and cannabinoids, and illicit synthetic cannabinoids, as well as tobacco, alcohol, and other drugs. b) The amount and type of cannabis or cannabinoid used, and its frequency, by those who acknowledge any use. Those who acknowledge any recent use (any in the past month) should then go on to targeted screening using the Cannabis Use Disorder Identification Test (CUDIT).

Screening for cannabis use should ideally be undertaken in all high-risk population groups such as individuals with a past history of substance misuse, recent bereavement, depression, social isolation, significant self-neglect, and chronic pain. The CUDIT is useful for identifying if problems found in a given case may not be attributable to cannabis use, although older adults may not think to mention medical use. Clinicians should initiate non-judgmental discussions related to cannabis and cannabinoid use with careful histories about signs and symptoms of CUD that may be similar to those of age-related nervous system changes, such as drowsiness, dizziness, memory impairment, and falls (**Recommendation 12**). To that end, the diagnostic accuracy of some screening tools may be variable because of this overlap (**Recommendation 14**).

**Recommendation #15:** Assessment of CUD in older adults should evaluate:

- a) Modes of use such as ingesting, smoking, vaping, use of extracts, topicals, nabilone, and nabiximols, and consider the risks/benefits/harms of all that apply to the patient.
- b) Frequency and dosage.

The mode of use should be explored carefully when there is a history of adverse effects. Regular inhalation (smoking) of combusted cannabis remains the most common route of administration in Canada,<sup>(2)</sup> and this route adversely affects respiratory health outcomes<sup>(19,20,21,22,23)</sup> and is considered to present the greatest risk. There is some evidence that use of edible cannabis, liquids, and oils eliminates respiratory risk, but these forms of administration introduce the risk of potential use of larger-than-intended doses because of the delayed onset of effect.<sup>(24,25,26)</sup> Frequency and dose used during each episode of use are strong predictors of the risk of both acute and chronic cannabis-related problems.<sup>(27)</sup> Assessment of CUD in older adults should also include comprehensive assessment of potential physical manifestations of CUD or consequences of cannabis use. As with other SUDs, the DSM-5 criteria for CUD may not adequately aid with assessment of severity of CUD in older adults.<sup>(28)</sup> In the assessment of

CUD, cannabis-related withdrawal (**Recommendation 16**) using a Cannabis Withdrawal Checklist<sup>(28)</sup> and cannabis hyperemesis (**Recommendation 17**) are of paramount importance to address.

**Recommendation # 20:** It is recommended that a variety of psychosocial approaches be considered for harm reduction or relapse prevention including: Cognitive Behavioral Therapy (CBT), Motivational Interviewing (MI), Mindfulness- Based Relapse Prevention (MBRP), Motivational Enhancement Therapy (MET), and Contingency Management (CM).

One meta-analysis found lower abstinence rates for people who had used cannabis compared to people who had used cocaine, opiates, and polysubstances.<sup>(29)</sup> A brief online CM self-help intervention showed a significant decrease in past-month quantity, frequency of cannabis use, and lower severity of dependence scores,<sup>(30)</sup> while MET has been shown to improve cannabis-related outcomes among treatment-seeking adults, non-treatment seekers, and individuals with co-occurring disorders.<sup>(31)</sup> These, in combination with peer support programs, are valuable recovery tools for older adults lacking social connection (**Recommendation 19**), and using SBIRT (Screening, Brief Intervention, and Referral to Treatment) initiatives where engagement is low, as there is significant evidence supporting the use of brief interventions (e.g., motivational enhancement and brief advice) among older adults.<sup>(32,33,34,35,36,37)</sup>

**Recommendation #21:** There are currently no established pharmacological treatments that have been demonstrated to be safe and effective for either cannabis withdrawal symptoms or CUD.

There is some evidence that gabapentin may attenuate withdrawal symptoms, while N-acetylcysteine (NAC) has demonstrated some promise in the reduction of cravings.<sup>(29)</sup> A systematic review by concluded that cannabinoid replacement therapy (with nabilone or dronabinol) has sufficient promise to warrant more extensive clinical trials<sup>38</sup>. Drawing from evidence used for the management of other SUDs that can be applied as reasonable principles for all SUD management, most experienced clinicians may manage older adults with mild-to-moderate CUD. If the individual is unable to effectively reduce or cease their cannabis use, they may benefit from involvement with a team or program specializing in SUDs including, when available, in an inpatient setting (**Recommendation 22**).

## FUTURE DIRECTIONS

Future research into cannabis use and CUD among older adults needs to start by recognizing and understanding patterns of, and motivations for, use in this population. It is clear that older adults use cannabis, but what is less clear is how and why this population uses it, what the prevalence of use across the life course is, how multiple factors unique to aging may positively or negatively impact patterns of use, and the harms associated with it. While the perception that cannabis

use poses a significant risk of negative consequences has decreased, it is nonetheless associated with cognitive impairment, increased risk for psychiatric disorders, and other mental health problems. Compounding this are the realities of aging, accompanied by changing physiologies that may alter the way cannabis is metabolized and experienced, a higher prevalence of multimorbidity that may increase the likelihood of a chronic or acute health condition being exacerbated, or of an unintended drug interaction.

Despite these limitations, clinicians need to discuss cannabis and cannabinoid use with their patients, to help promote healthy behaviours and to identify potential risks, harms or problematic use that warrant follow-up or intervention. Clinicians also need to be mindful of the social context within which cannabis—a widely-used, now legal, and widely-available substance—is situated. This includes anecdotal narratives about its medicinal properties which, although potentially promising, are largely unsubstantiated and open to exploitation. In addition to this, the reality that cannabis occupies a counter-culture image that is now being commercialized as legal markets open poses a risk for older adults to be specific demographic targets in cannabis marketing.

Regulation and quality control within a legal market have arguable benefits for reducing certain harms, but the implications for rates of use remain unknown for the older adult population, even in jurisdictions with a longer history of legal non-medical cannabis.

It is in this context that clinicians must be aware of the current state of evidence and practice in cannabis use disorder and cannabis use in older adults. They must keep in mind that older adults are using cannabis, likely have questions, and deserve evidence-informed answers and guidance. The guidelines herein provide recommendations on the basis of available evidence and the experience of clinicians, and acknowledge that gaps in the evidence clearly exist. Patients will undoubtedly have questions, and it is important that clinicians have answers grounded in evidence, rather than in conjecture or anecdotes about cannabis use.

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## CONFLICT OF INTEREST DISCLOSURES

The project was funded by Health Canada (Substance Use and Addictions Program). The funder had no role in the creation or approval of the recommendations. Authors received an honorarium for their work. A rigorous process was undertaken to ensure that members of the working group did not have any significant conflict of interest.

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