

CADTH RAPID RESPONSE REPORT:
SUMMARY WITH CRITICAL APPRAISAL

Medical Cannabis in Residential Transition or Addiction Programs: A Review of Clinical and Cost- Effectiveness and Guidelines

Service Line: Rapid Response Service
Version: 1.0
Publication Date: April 5, 2017
Report Length: 8 Pages

Authors: Kelsey Seal, Melissa Severn

Cite As: *Medical Cannabis in Residential Transition or Addiction Programs: A Review of Clinical and Cost-Effectiveness and Guidelines*. Ottawa: CADTH; 2017 Apr. (CADTH rapid response report: summary with critical appraisal).

Acknowledgments:

ISSN: 1922-8147 (online)

Disclaimer: The information in this document is intended to help Canadian health care decision-makers, health care professionals, health systems leaders, and policy-makers make well-informed decisions and thereby improve the quality of health care services. 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. The Canadian Agency for Drugs and Technologies in Health (CADTH) does not endorse any information, drugs, therapies, treatments, products, processes, or services.

While care has been taken to ensure that the information prepared by CADTH in this document is accurate, complete, and up-to-date as at the applicable date the material was first published by CADTH, CADTH does not make any guarantees to that effect. CADTH does not guarantee and is not responsible for the quality, currency, propriety, accuracy, or reasonableness of any statements, information, or conclusions contained in any third-party materials used in preparing this document. The views and opinions of third parties published in this document do not necessarily state or reflect those of CADTH.

CADTH is not responsible for any errors, omissions, injury, loss, or damage arising from or relating to the use (or misuse) of any information, statements, or conclusions contained in or implied by the contents of this document or any of the source materials.

This document may contain links to third-party websites. CADTH does not have control over the content of such sites. Use of third-party sites is governed by the third-party website owners' own terms and conditions set out for such sites. CADTH does not make any guarantee with respect to any information contained on such third-party sites and CADTH is not responsible for any injury, loss, or damage suffered as a result of using such third-party sites. CADTH has no responsibility for the collection, use, and disclosure of personal information by third-party sites.

Subject to the aforementioned limitations, the views expressed herein are those of CADTH and do not necessarily represent the views of Canada's federal, provincial, or territorial governments or any third party supplier of information.

This document is prepared and intended for use in the context of the Canadian health care system. The use of this document outside of Canada is done so at the user's own risk.

This disclaimer and any questions or matters of any nature arising from or relating to the content or use (or misuse) of this document will be governed by and interpreted in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein, and all proceedings shall be subject to the exclusive jurisdiction of the courts of the Province of Ontario, Canada.

The copyright and other intellectual property rights in this document are owned by CADTH and its licensors. These rights are protected by the Canadian *Copyright Act* and other national and international laws and agreements. Users are permitted to make copies of this document for non-commercial purposes only, provided it is not modified when reproduced and appropriate credit is given to CADTH and its licensors.

About CADTH: CADTH is an independent, not-for-profit organization responsible for providing Canada's health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs, medical devices, diagnostics, and procedures in our health care system.

Context and Policy Issues

Medical cannabis has many medically used preparations and methods of administration to treat an array of chronic and acute conditions. They include dronabinol, nabilone, nabiximols, plant-derived preparations made by government-licensed producers, dried cannabis, cannabis oil, and cannabidiol.¹

In Canada, the current and approved uses of cannabis and cannabinoids as medicine include nausea and vomiting, appetite stimulation, and pain relief. There are also many proposed therapeutic uses for cannabis and cannabinoids, such as multiple sclerosis, epilepsy, cancer, anti-inflammatory actions, neuroprotection, obesity, glaucoma, and uses in psychiatry including substance use disorders.¹

Two main cannabinoids from the marijuana plant used for medical purposes are delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD). THC can increase appetite, reduce nausea, decrease pain, but the compound is known to have addictive properties. Conversely, CBD may have anti-addictive properties and is known to reduce pain and inflammation, control epileptic seizures, and treat mental illness and addictions.² Since CBD may have anti-addictive properties, it has been proposed as an alternative to treat addictions.

The purpose of this Rapid Response is to review the clinical effectiveness, the cost-effectiveness, and the evidence-based guidelines regarding the use of medical cannabis to treat adults with addiction in residential transition/addiction programs.

Research Questions

1. What is the clinical effectiveness of medical cannabis in adults with addictions being treated in residential transition/addiction programs?
2. What is the cost-effectiveness of medical cannabis in adults with addictions being treated in residential transition/addiction programs?
3. What are the evidence-based guidelines associated with the use of medical cannabis in adults with addiction being treated in residential transition/addiction programs?

Key Findings

No relevant literature was identified regarding the clinical effectiveness, cost-effectiveness, or evidence-based guidelines regarding the use of medical cannabis in adults with addictions being treated in residential transition/addiction programs.

Methods

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. The

search was limited to English language documents published between Jan 1, 2012 and Mar 16, 2017.

Literature Search Methods

Rapid Response reports are organized so that the evidence for each research question is presented separately.

Selection Criteria and Methods

One reviewer screened citations and selected studies. In the first level of screening, titles and abstracts were reviewed and potentially relevant articles were retrieved and assessed for inclusion. The final selection of full-text articles was based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

Population	Adults with addictions (i.e., but not limited to opioids, alcohol, cannabis, cocaine, benzodiazepines, etc.) in residential transition/addictions programs in either inpatient or outpatient settings
Intervention	Medical cannabis (all forms)
Comparator	Q1-2: Active treatment (e.g., but not limited to nabilone, medical cannabis [pharmaceutical grade or prescription-based], etc.); No active treatment Q3: No comparator
Outcomes	Q1: Clinical effectiveness, safety (harms [harm for self and others; drug drug interactions, particularly with opioid replacement therapy (e.g., methadone, suboxone), and psychiatric medications [e.g., anti psychotics, anti-depressants]) Q2: Cost-effectiveness (e.g., cost per benefit, cost per increase in quality adjusted life-years, etc.) Q3: Guidelines
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, economic evaluations, guidelines

Exclusion Criteria

Articles were excluded if they did not meet the selection criteria outlined in Table 1, they were duplicate publications, or were published prior to 2012.

Summary of Evidence

Quantity of Research Available

A total of 275 citations were identified in the literature search. Following screening of titles and abstracts, 275 citations were excluded and no potentially relevant reports from the electronic search were retrieved for full-text review. No potentially relevant publications were retrieved from the grey literature search. Appendix 1 describes the PRISMA flowchart of the study selection.

Additional references of potential interest are provided in Appendix 2.

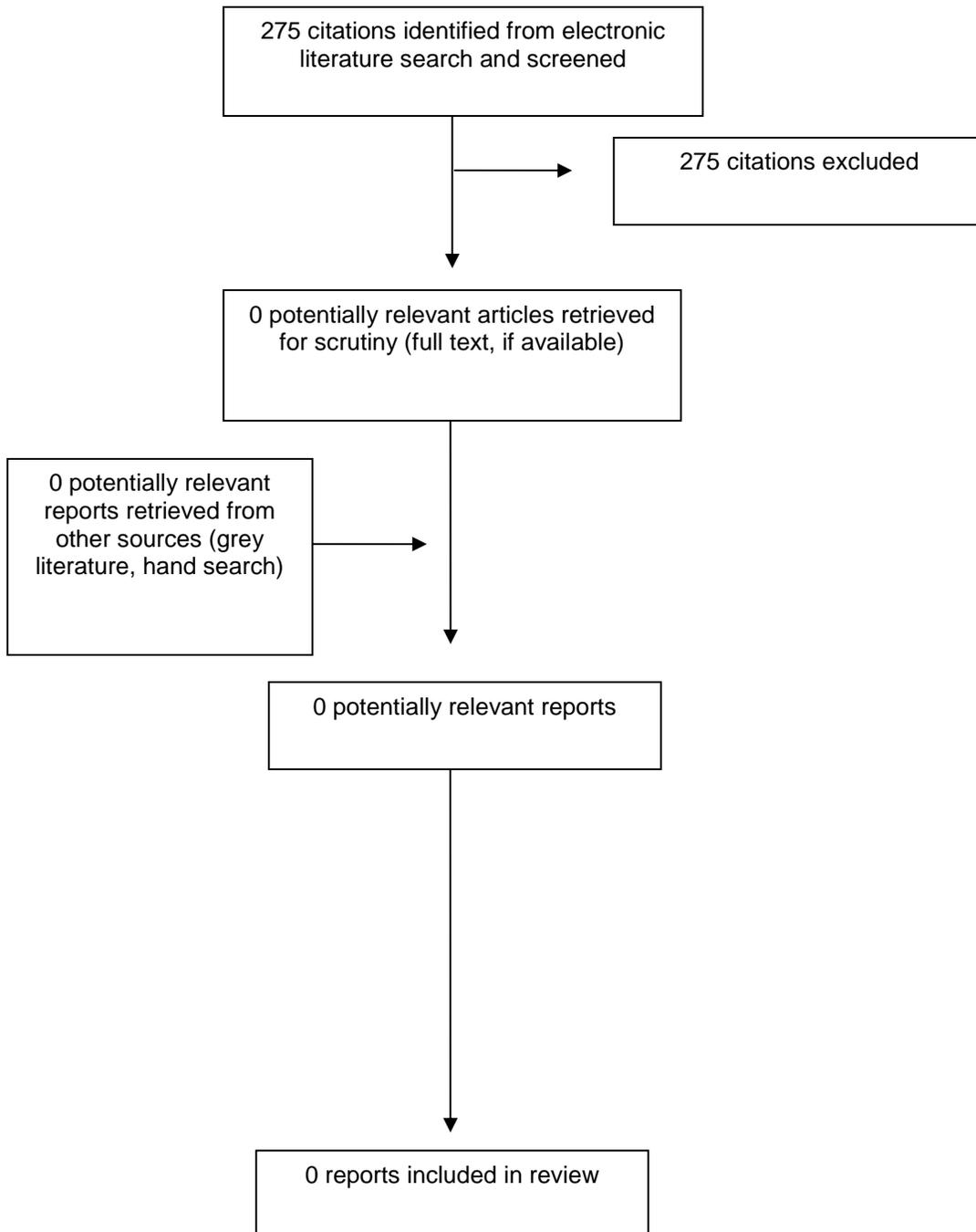
Conclusions and Implications for Decision or Policy Making

No relevant literature was identified regarding the clinical effectiveness, the cost-effectiveness, or evidence-based guidelines regarding the use of medical cannabis in adults with addictions in residential transition/addiction programs. No conclusions, therefore, can be drawn.

References

1. Kalant H, Porath-Waller AJ. Medical use of cannabis and cannabinoids - an update. In: Clearing the smoke on cannabis [Internet]. Ottawa: Canadian Centre on Substance Abuse; 2016 [cited 2017 Mar 29]. Chapter 5. Available from: <http://www.ccsa.ca/Resource%20Library/CCSA-Medical-Use-of-Cannabis-Report-2016-en.pdf>
2. Marijuana as medicine [Internet]. Bethesda (MD): National Institute on Drug Abuse, National Institutes of Health, U.S. Department of Health and Human Services; 2017 Mar. [cited 2017 Mar 29]. Available from: <https://www.drugabuse.gov/publications/drugfacts/marijuana-medicine>

Appendix 1: Selection of Included Studies



Appendix 2: Additional References of Potential Interest

Systematic Review – Alternate Outcomes

This systematic review uses cannabidiol to treat withdrawal and intoxication, not dependence/addiction. It may be of interest as it examines the use of cannabidiol to treat smoking dependence.

Prud'homme M, Cata R, Jutras-Aswad D. Cannabidiol as an Intervention for Addictive Behaviors: A Systematic Review of the Evidence. *Subst Abuse* [Internet]. 2015 [cited 2017 Mar 29];9:33-8. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4444130>