Cannabinoid Product Board

Annual Report

November 2019

Prepared by

Cannabinoid Product Board

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Executive Summary

November 2019

Medical and adult recreational use of cannabis has been legalized in many states. The Utah Medical Marijuana ballot initiative, Proposition 2, passed during the November 2018 general election and was followed in December 2018 by legislative adjustments to this initiative. These events established the Utah Medical Cannabis Act, which decriminalizes the possession and use of certain forms of cannabis and cannabis-based products when being used under the supervision of a qualified medical provider to treat certain medical conditions.

To help guide the treatment aspects of this complex program and improve short and long-term overall outcomes, the Utah State Legislature has taken a proactive approach by establishing the Center for Medical Cannabis (CMC) and the Cannabinoid Product Board (CPB). The purpose of the CPB is to review the available research literature and assist the Utah Department of Health (UDOH) and CMC in their efforts to provide useful treatment recommendations to qualified medical providers regarding the use of cannabis and cannabinoid products for treatment of certain medical conditions identified as "qualifying medical conditions."

The CPB is composed of seven members who are medical researchers, physicians, and one of the members must also represent the Controlled Substances Advisory Committee (CSAC).

The CPB met six times between January and October 2019 to review and discuss current cannabinoid research and to assist the UDOH in the construction of a "package insert." Annually, the CPB provided recommendations to the legislature regarding their findings. This report contains the findings and recommendations of the CPB from January to November 2019.

Key Points:

- The CPB is currently assisting the CMC in drafting standard package insert language for medical cannabis products to be sold in Utah. The package insert, when completed, will be similar to package inserts for FDA-approved prescription medications and will be based on findings of the CPB research efforts. The package insert will include:
  - Utah statute-approved indications for use and research data regarding the use of cannabis and cannabinoids for treatment of the approved conditions;
  - strength of evidence guiding treatment recommendations;
  - starting dose and dose titration suggestions;
  - THC:CBD ratio suggestions for specific disease states;
  - warnings and contraindications;
  - potential adverse reactions;
  - cannabis and cannabinoid pharmocodynamics and pharmachokinetics; and
  - drug-interactions.
- The CPB assisted in the review of continuing medical education content that is required for qualified medical providers. As of September 2019, one course*, The Answer Page*, was approved by the UDOH and CPB to fulfill the four-hour annual education requirement.
- The CPB recommends a change to Utah Code, 26-61-202, that would allow the CPB to review and consider studies conducted outside the United States that may not have been approved by the United States federal government or a United States Institutional Review Board (IRB).
- The CPB recommends ongoing monitoring of the current nationwide outbreak of serious adverse pulmonary illness and deaths that appear to be associated with the use of e-cigarette-type vaping

devices containing unregulated THC or other cannabis/cannabinoid concentrates. The CPB recommends following current guidance from the Centers for Disease Control and Prevention (CDC) and avoiding use of unregulated e-cigarette devices or vaping products as a cannabis delivery method.

Table of Contents

Introduction

The Cannabinoid Product Board (CPB) is the result of the Cannabinoid Research Act (H.B. 130) that was passed during the 2017 Utah General Legislative Session and amended during subsequent sessions to include review of research regarding "expanded cannabinoid products" which includes cannabinoid products with significant tetrahydrocannabinol (THC) content.

The Cannabinoid Research Act directs the Utah Department of Health (UDOH) to form and facilitate the activities of the CPB. As stated in Utah statute, the purpose of the CPB is to review available research related to the human use of cannabinoid products. Specifically, the CPB evaluates the safety and efficacy of cannabinoid products and expanded cannabinoid products in terms of:

1. medical conditions that respond to cannabinoid products;
2. dosage amounts and their medical forms; and
3. interactions between cannabinoid products, expanded cannabinoid products, and other treatments.

The CPB currently may only review research approved by an Institutional Review Board (IRB), or approved/conducted by the federal government. From this research, the CPB is directed to develop treatment guidelines to assist qualified medical providers who may recommend cannabis and cannabinoid products for treatment of patients with qualifying medical conditions. The CPB is directed to report the findings of their evaluation in writing to the Health and Human Services Interim Committee before November 1st of each year.

Current Utah Code 26-61-201 states that the CPB consist of seven members "…in consultation with a professional association based in the state that represents physicians." Three of the CPB members must be medical researchers and four must be physicians. One of the CPB members must also be a member of the Controlled Substances Advisory Committee (CSAC). The CPB may elect their own leadership and vote on recommendations they will make as a board to the legislature.

The CPB selected Edward Redd M.D. to be Chair for the 2019-2020 year, and Michael Crookston M.D., F.A.P.A., F.A.S.A.M. to fill the role of Co-chair for the 2019-2020 year.

Current board members include:

Michael Crookston M.D., F.A.P.A., F.A.S.A.M.	*Medical Director, Adult Dayspring*
Katherine Carlson* M.D., M.S.	*Medical Director, Project Reality Substance Abuse Treatment and Prevention Services*
Perry G. Fine M.D.	*University of Utah, School of Medicine*
Lauren J. Heath Pharm.D., M.S., B.C.A.C.P.	*University of Utah, College of Pharmacy*
Edward Redd M.D.	*Internal medicine/public health - Bear River Health Department, and mental health prescriber for Bear River Mental Health and the Cache County Jail*
Karen Wilcox Ph.D.	*University of Utah, Health Sciences Center*
Brian Keith Zehnder M.D.	*Medical Director, Exodus Healthcare Network, PLLC*

* CSAC Member

Facilitation of the CPB was originally delegated to the UDOH Tobacco Prevention and Control Program. In December 2018, the Utah Medical Cannabis Act was signed into law, which resulted in the establishment of the UDOH Center for Medical Cannabis. Staff with the Center for Medical Cannabis will work in conjunction with the CPB and facilitate the function of the CPB going forward.

Key UDOH staff members working with the CPB include:

Kendra Babitz, M.P.P.	*Utah Department of Health Bureau of Health Promotion*
Richard Oborn, M.P.A.	*Utah Department of Health Director, Center for Medical Cannabis*
Steve Ipsen, M.S.R.N.	*Utah Department of Health Center for Medical Cannabis*
Kayla Strong, M.A.	*Utah Department of Health Center for Medical Cannabis*
Marc Babitz, M.D.	*Utah Department of Health Deputy Director*
Rachel Belcher, Pharm.D Candidate	*Utah Department of Health Center for Medical Cannabis Intern*

Bylaws

The CPB operates under bylaws which were established in 2017. These bylaws define the structure of the CPB and help guide decisions and operations. The bylaws were adapted from the Colorado Medical Marijuana Scientific Advisory Council bylaws, with inclusion of requirements in H.B. 130 (2017). The bylaws were updated to reflect the changes which occurred with subsequent changes in the statute. The bylaws contain the duties of the CPB, which are defined as:

ARTICLE IV: Duties of the CPB

Section 1. The CPB shall:

1) Review any available research related to the human use of a cannabinoid product or an expanded cannabinoid product that:
    a) was conducted under a study approved by an IRB; or
    b) was conducted or approved by the federal government.
2) Based on the research, the CPB shall evaluate the safety, risks, and efficacy of cannabinoid products and expanded cannabinoid products, including:
    a) medical conditions that respond to cannabinoid products and expanded cannabinoid products;
    b) cannabinoid dosage amounts and medical dosage forms; and
    c) interaction of cannabinoid products and expanded cannabinoid products with other treatments.
3) Based on the CPB's evaluation, the CPB shall develop guidelines for a physician recommending treatment with a cannabinoid product or an expanded cannabinoid product that includes a list of medical conditions, if any, that the CPB determines are appropriate for treatment with a cannabinoid product or an expanded cannabinoid product.
4) The CPB shall submit the guidelines to:
    a) the director of the Division of Occupational and Professional Licensing; and
    b) the Health and Human Services Interim Committee.
5) The CPB shall report the CPB findings before November 1 of each year to the Health and Human Services Interim Committee.

The bylaws also contain information regarding the responsibilities of the UDOH and how meetings should be conducted using Robert's Rules of Order, as well as how to deal with conflicts of interest.

Website

In 2017, a public website was developed for the purpose of organizing research, providing a place for public comment, and adding an extra layer of transparency to the proceedings of the CPB. The website can be found at https://sites.google.com/utah.gov/cpboard/. The website contains information regarding when and where the CPB meetings will be held, upcoming and past agendas, and meeting minutes. The website also contains a section for research, which has copies of all the literature being reviewed by the CPB. This website is also a place for the public to interact with the CPB. The public can submit comments or questions to the CPB and board members can respond.

In 2019, the UDOH Center for Medical Cannabis launched a website that will house the workings of the CPB. At the time of this report, the data on the original CPB website was being migrated to the new website and all information going forward will be featured on this page. The Center for Medical Cannabis website can be found at https://medicalcannabis.utah.gov/.

Organization

During the August 2019 CPB meeting, Edward Redd, M.D. was voted to retain the role of Chair for the 2019-2020 calendar year. Dr. Redd currently serves as a practicing physician with the Bear River Health Department in Logan, Utah. Dr. Michael Crookston was also voted to retain the role of Co-chair for the 2019-2020 calendar year. The CPB meets monthly or on an as-needed basis. Since January 2019, the CPB has met six times. The agenda of the board meetings consist of administrative items, review and discussion of published research, as well as collaboration with UDOH staff to develop resources and guidelines for qualified medical providers. Research reports and findings are shared via email with members of the CPB followed by discussion during CPB meetings regarding the quality of the data and implications for medical cannabis use in Utah. The CPB uses this research to assist staff with the UDOH and the Center for Medical Cannabis in their efforts to develop resources and treatment guidelines for qualified medical providers. Two of these resources are the package insert document and continuing education for medical professionals that are described below. The CPB also invites subject matter experts to present at the meetings and provide information above and beyond what may be easily extracted from published literature.

Process for Reviewing and Classifying Research

The CPB was asked to review available peer-reviewed medical literature and evaluate the safety and efficacy of cannabinoid products in terms of:

1) medical conditions that respond to cannabinoid products;
2) dosage amounts and their medicinal forms; and
3) drug interactions between cannabinoid products and other treatments.

As such, the CPB needed to create processes by which they could systematically review the strength of evidence supporting clinical effects and side-effects of cannabis and cannabinoids. The CPB agreed to adopt the strength-of-evidence categories used by the National Academies of Science, Engineering, and Medicine (National Academies) in their book, "*The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research."* The categories and the general parameters for the types of evidence supporting each category are listed below. [1] Stating a level of confidence in the available research data does not imply the CPB agrees or disagrees with any conclusion or recommendation.

Conclusive Evidence

For therapeutic effects: There is strong evidence from randomized controlled trials to support the conclusion that cannabinoids are an effective or ineffective treatment for the health endpoint of interest.

For other health effects: There is strong evidence from randomized controlled trials to support or refute a statistical association between cannabinoid use and the health endpoint of interest.

For this level of evidence, there are many supportive findings from good-quality studies with no credible opposing findings. A firm conclusion can be made and the limitations to the evidence, including chance, bias, and confounding factors, can be ruled out with reasonable confidence.

Substantial Evidence

For therapeutic effects: There is strong evidence to support the conclusion that cannabinoids are an effective or ineffective treatment for the health endpoint of interest

For other health effects: There is strong evidence to support or refute a statistical association between cannabinoid use and the health endpoint of interest.

For this level of evidence, there are several supportive findings from good-quality studies with very few or no credible opposing findings. A firm conclusion can be made, but minor limitations, including chance, bias, and confounding factors, cannot be ruled out with reasonable confidence.

Moderate Evidence

For therapeutic effects: There is some evidence to support the conclusion that cannabinoids are an effective

[1] National Academies of Sciences, Engineering, and Medicine. 2017. *The health effects of cannabis and cannabinoids: The current state of evidence and recommendations for research.* Washington, DC: The National Academies Press. doi: 10.17226/24625.

or ineffective treatment for the health endpoint of interest.

For other health effects: There is some evidence to support or refute a statistical association between cannabinoid use and the health endpoint of interest.

For this level of evidence, there are several supportive findings from good- to fair-quality studies with very few or no credible opposing findings. A general conclusion can be made, but limitations, including chance, bias, and confounding factors, cannot be ruled out with reasonable confidence.

Limited Evidence

For therapeutic effects: There is weak evidence to support the conclusion that cannabinoids are an effective or ineffective treatment for the health endpoint of interest.

For other health effects: There is weak evidence to support or refute a statistical association between cannabinoid use and the health endpoint of interest.

For this level of evidence, there are supportive findings from fair-quality studies or mixed findings with most favoring one conclusion. A conclusion can be made, but there is significant uncertainty due to chance, bias, and confounding factors.

No or Insufficient Evidence to Support the Association

For therapeutic effects: There is no or insufficient evidence to support the conclusion that cannabinoids are an effective or ineffective treatment for the health endpoint of interest.

For other health effects: There is no or insufficient evidence to support or refute a statistical association between cannabinoid use and the health endpoint of interest.

For this level of evidence, there are mixed findings, a single poor study, or health endpoint has not been studied at all. No conclusion can be made because of substantial uncertainty due to chance, bias, and confounding factors.

Utah Qualifying Conditions

With the passage of the Utah Medical Cannabis Act, the CPB was able to focus on research regarding specific conditions that are permissible for medical cannabis use in Utah. These conditions are:

- HIV or acquired immune deficiency syndrome
- Alzheimer's disease
- amyotrophic lateral sclerosis
- cancer
- cachexia
- persistent nausea that is not significantly responsive to traditional treatment, except for nausea related to:
    - pregnancy
    - cannabis-induced cyclical vomiting syndrome
    - cannabinoid hyperemesis syndrome
- Crohn's disease or ulcerative colitis
- epilepsy or debilitating seizures
- multiple sclerosis or persistent and debilitating muscle spasms
- post-traumatic stress disorder that is being treated and monitored by a licensed mental health therapist and that:
    - has been diagnosed by a healthcare provider or mental health provided employed or contracted by the United State Veterans Administration, or
    - has been diagnosed or confirmed by a provider who is:
        - a licensed psychiatrist
        - a licensed psychologist with a doctorate-level degree
        - a licensed clinical social worker with a doctorate-level degree
        - a licensed advanced practice registered nurse who is qualified to practice within the psychiatric mental health nursing specialty
- autism
- a terminal illness when the patient's remaining life expectancy is less than six months
- a condition resulting in the individual receiving hospice care
- a rare condition or disease that:
    - affects less than 200,000 individuals in the United States
    - is not adequately managed despite treatment attempts using:
        - conventional medications other than opioids or opiates, or
        - physical interventions
- a condition that the Compassionate Use Board approves on an individual, case-by-case basis

Package Insert

During the 2019 CPB meetings, board members assisted staff with the Center for Medical Cannabis in efforts to draft standard package insert language for medical cannabis products to be sold in Utah. The package insert language is based on the findings of the CPB since its inception and incorporates accepted research data and summary monographs for specific conditions permissible for medical cannabis use in Utah. The package insert will provide treatment suggestions and safety precautions. This package insert will be provided to all qualified medical providers (providers who may legally recommend medical cannabis) and pharmacists involved in recommending medicinal cannabis for patients with qualifying conditions.

Continuing Education for Medical Professionals

The Utah Medical Cannabis Act requires medical professionals who wish to become qualified medical providers complete four hours of cannabis-specific continuing education. This requirement must be met prior to the application for becoming a qualified medical provider, and then every two years if the provider wishes to continue recommending medical cannabis. In 2019, the CPB was involved in the review and recommendation of continuing education courses and content. *The Answer Page* course was approved by the UDOH to fulfill the four-hour requirement and may be found at https://www.theanswerpage.com/product/utah-medical-cannabis-program-4-hr-required-course/. Additional courses will be reviewed in collaboration with the UDOH in the future.

Product Labeling

The Utah Department of Agriculture and Food (UDAF) is responsible for monitoring the safety and lab testing of products and has been working closely with the UDOH to establish rules and guidelines relating to the product labeling requirements. The CPB was involved in many of the discussions relating to product labeling, and will continue to be a resource as the Departments create policies and issue licenses to processors and pharmacies.

For reference, the requirements for labeling as defined by the Utah Medical Cannabis Act include:

The medical cannabis pharmacy may not sell cannabis or cannabis product unless the cannabis product has a label securely affixed to the container indicating the following information:

- the name, address, and telephone number of the medical cannabis pharmacy
- the unique identification number of the medical cannabis pharmacy
- the unique identification number that the medical cannabis pharmacy assigns
- the date of sale
- the name of the patient
- the name of the qualified medical provider who recommends the medical cannabis treatment
- directions for use and cautionary statements, if any
- the amount dispensed and the cannabinoid content
- the beyond use date
- any other requirement(s) that the department determines, in consultation with the Division of Occupational and Professional Licensing and the Board of Pharmacy

Cannabis Expert Guest Presentation

In July 2019, the UDOH, in collaboration with the CPB, hosted Dr. Donald Abrams, a nationally-recognized medical cannabis expert, researcher, and co-collaborator on the National Academies book, "The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research." Participants in this presentation included members of the CPB, the Compassionate Use Board, agency employees from the UDOH and UDAF, medical professionals, and advocacy groups.

Recent Vaping-related Lung Injury and Death Associated with Use of Unregulated THC Vaping Cartridges

According to reports from the CDC[2] as of September 24, 2019:

- 805 lung injury cases associated with the use of e-cigarette or vaping products have been reported to CDC from multiple states including Utah.
- 12 deaths across the United States due to vaping-related lung injuries have been confirmed.
- The latest findings from the investigation into lung injuries associated with e-cigarette use, or vaping, suggest unregulated products containing THC play a role in the outbreak.
- Most of the patients reported using unregulated THC-containing products or both unregulated THC-containing products and nicotine-containing products. Some of the patients reported using only nicotine-containing products.
- All patients have a reported history of e-cigarette product use, or vaping, and no consistent evidence of infectious causes have been discovered.
- The specific cause of these injuries associated with e-cigarette product use, or vaping, remains unknown at this time.
- No single product or substance has been linked to all lung injury cases. More information is needed to know whether a single product, substance, brand, or method of use is responsible for the outbreak.
- While this investigation is ongoing, the CDC recommends refraining from using e-cigarette, or vaping, products, particularly unregulated products containing THC.
- Individuals who have recently used an e-cigarette or vaping product and have symptoms like those reported in this outbreak, should be seen by a healthcare provider.

[2] https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html

- Regardless of the outcome of this ongoing investigation the CDC recommends the following:
    - Anyone who uses an e-cigarette or vaping product should not buy these products (e.g., e-cigarette or vaping products with THC or CBD oils) off the street, and should not modify or add any substances to these products that are not intended by the manufacturer.
    - Youth and young adults should not use e-cigarette, or vaping, products.
    - Women who are pregnant should not use e-cigarette, or vaping, products.
    - Adults who do not currently use tobacco products should not start using e-cigarette or vaping products.

The CPB will continue to partner with the UDOH and monitor ongoing investigations into the current vaping-related outbreak of pulmonary injuries with the goal of understanding the underlying causes of this outbreak. Lessons learned from these investigations will be used to help assure that medical cannabis vaping products produced and sold in Utah are devoid of unnecessary risks and are unlikely to harm patients who are seeking help in the management and treatment of their complex medical conditions.

Summary and Recommendations

- The CPB is assisting the UDOH Center for Medical Cannabis in drafting a package insert for medical cannabis products that will be sold in Utah. The language in this insert will be based on the findings of the CPB and will incorporate research data and summary monographs for specific conditions currently permitted for medical cannabis use in Utah.

- The CPB assisted the Center for Medical Cannabis in the reviewing and approving continuing education courses and content. As of September 2019, one course, *The Answer Page*, was approved by the UDOH to fulfill the four-hour requirement and may be found at https://www.theanswerpage.com/product/utah-medical-cannabis-program-4-hr-required-course. Additional courses will be reviewed in collaboration with the UDOH in the future.

- After two years of researching therapeutic uses for cannabis, the CPB found many published reports that fall outside of the definition of allowable research for the board to review. The current statute restricts review by the CPB to research that:
    - was conducted under a study approved by an IRB; or
    - was conducted or approved by the federal government.
    - There are a number of research reports from foreign countries that would not be considered "approved by the federal government" and may not have been reviewed by an IRB but could still be useful in developing medical cannabis treatment guidelines and increasing the likelihood of improved clinical outcomes. The CPB believes the current limitation on what research literature is allowed for consideration is too restrictive and there should be a change in the statute that would allow the CPB to review studies conducted outside of the United States.
- The current multi-state outbreak of pulmonary injuries and deaths associated with e-cigarette and vape products warrants ongoing monitoring. Until the cause of this outbreak is better-understood, the CPB recommends following current guidance from the CDC and avoiding use of unregulated vaping products and other unregulated e-cigarette devices as cannabis delivery methods.
- The CPB recommends the UDOH consult with the Utah Division of Occupational and Professional Licensing and the Board of Pharmacy to consider modifying current package labeling requirements for medical cannabis to include explicit instructions regarding mode of administration such as *"For oral use only"* and *"Not intended for smoking."*

Next Steps

- The CPB will continue to meet regularly or as necessary to review emerging research regarding the potential benefits and risks of medicinal use of cannabis and cannabinoid products for treatment of various medical conditions.
- The CPB will invite additional experts from a variety of backgrounds to assist the board in their designated duties to advance the knowledge and optimal use of cannabis and cannabinoid products for the treatment of qualifying medical conditions.
- The CPB will continue to work closely with UDOH and Center for Medical Cannabis staff to develop needed resources and treatment guidelines (a package insert) to assist qualified medical providers and pharmacists who recommend medical cannabis to patients.