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Standard Guide for Requirements for Medical-related Professionals within the Cannabis and Hemp Industries¹

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1. Scope

1.1 This guide can provide certification bodies, training providers, employers, and certificate issuers, with best-practice guidance for administering their respective programs for medical-related professions within the cannabis and hemp industries.

1.2 This guide recommends requirements for experience, training, education, and the body of knowledge (BoK) necessary for medical-related professions within the cannabis and hemp industries listed in [Table 1](#).

1.3 For purposes of this guide, a medical professional is defined as a person qualified and licensed as required by the jurisdiction to provide guidance or recommendations regarding a person's health or fitness.

1.4 This guide provides recommendations for articulating professional requirements for training and education or earning certificates. It is part of a series of guides denoting certification requirements for professions within the cannabis and hemp industries (Guides [D8346](#), [D8347](#), [D8348](#)), and supporting Practice [D8403](#) for associated certificate programs.

1.5 This guide's content does not supersede requirements for training or earning a certificate defined by jurisdictional entities such as government or other regional regulatory bodies.

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

¹ This guide is under the jurisdiction of ASTM Committee [D37](#) on Cannabis and is the direct responsibility of Subcommittee [D37.06](#) on Personnel Training, Assessment, Credentialing.

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2. Referenced Documents

2.1 ASTM Standards:²

[D8270 Terminology Relating to Cannabis](#)

[D8346 Guide for Requirements for Quality Related Professions Within the Cannabis and Hemp Industries](#)

[D8347 Guide for Requirements for Analytical Laboratory Related Professions Within the Cannabis and Hemp Industries](#)

[D8348 Guide for Requirements for Transportation and Logistics Related Professions Within the Cannabis and Hemp Industries](#)

[D8403 Practice for Certificate Programs within the Cannabis and Hemp Industries](#)

[E2659 Practice for Certificate Programs](#)

[E2708 Terminology for Accreditation and Certification](#)

3. Terminology

3.1 Definitions:

3.1.1 *General*—Definitions are in accordance with Terminology [D8270](#), unless otherwise indicated.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *certificate*, *n*—a document (letter, card, or other medium) awarded to certificate holders that designates the successful completion of a credentialing program's requisites.

(E2708, E2659)

3.2.2 *certificate program*, *n*—a non-degree-granting education of training program consisting of (1) a learning event or series of events designed to educate or train individuals to achieve specified learning outcomes within a defined scope, and (2) a system designed to ensure individuals receive a certificate only after verification of successful completion of all program requisites, including but not limited to an evaluation of learner attainment of intended learning outcomes.

(E2708, E2659)

3.2.3 *certification*, *n*—procedure and action by a duly authorized body of determining, certifying, and attesting in

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

TABLE 1 Cannabis and Hemp Medical Professions

Cannabis & Hemp Medical Professionals

Section 7

writing to the qualifications of individuals, processes, procedures, or items in accordance with application requirements; personnel certification-procedure and action by a duly authorized body of determining, verifying, and attesting in writing to the qualifications of individuals in a profession, in accordance with application requirements associated with that profession. **(E2708, E2659)**

3.2.4 *certification agency, n*—the organizational or administrative unit that offers or operates, or both, a certification program. **(E2708, E2659)**

3.2.5 *guide, n*—a compendium of information or series of options that does not recommend a specific course of action; guides are intended to increase the awareness of information and approaches in a given subject area.

3.2.5.1 *Discussion*—Guides may propose a series of options or instructions that offer direction without recommending a definite course of action. The purpose of this type of guide is to offer guidance based on a consensus of viewpoints but not to establish a standard practice to follow in all cases (ASTM Form and Style C15.2).³

4. Summary of Guide

4.1 The BoK criteria is itemized in their associated tables and represent the general competency subject matter expertise that practitioners within each profession should demonstrate to meet certificate requirements as guided by Practice **E2659**.

4.2 Mastery of said criteria can be demonstrated by many alternative means, including but not limited to passing proctored examinations, attaining educational degrees or training certificates, and the documented completion of apprenticeships or other on-the-job training, as determined by the relevant jurisdiction.

4.3 Section 6 identifies the professions covered in this guide.

4.4 Section 7 identifies the profession covered in this guide, followed by the following four sections:

- 4.4.1 Professional roles,
- 4.4.2 Experience,
- 4.4.3 Education, and
- 4.4.4 BoK.

4.5 The sourcing of personnel meeting these qualifications may be difficult in an emerging sector. In situations where post-secondary degreed personnel or post-secondary institutions are not available or applicable, the phasing-in of staff is acceptable in the first three years of employment along with sector training or apprenticeship programs reflecting the content of the professional BoK. The validation process can occur through proctored exams.

5. Significance and Use

5.1 As patient use of cannabis and hemp for medical purposes increases and medical professionals are increasingly called upon to provide medical advice, the following requirements and expectations within the medical profession are increasingly significant, requiring:

5.1.1 Availability by patients to qualified medical professionals who can provide safe and objective advice on the medical use of cannabis and hemp,

5.1.2 Clarity by medical professionals on the legal restrictions in their area of jurisdiction to ensure compliance, and

5.1.3 Development of qualified training and certificate programs to ensure safe and quality healthcare for patients.

5.2 The primary objectives of this guide are as follows:

5.2.1 Provide a general overview of the BoK required for the professions listed in Section 7; and

5.2.2 Provide recommendations to form the foundation for training and subsequent recognition/certificate systems that enable consumers, employers, organizational management, government agencies, and others who rely upon medical professionals to distinguish between qualified and non-qualified workers.

5.2.3 Recommend requirements that agencies can use to develop and document the specific criteria used for training or certificate programs.

5.3 Users of this guide shall document deviations from the recommended requirements to inform their clients of the criteria applied in either the training or the certificate programs offered. As the cannabis and hemp industries and medical guidelines mature, this guide will be updated to reflect current thinking and requirements.

5.4 The Bok elements are applicable to certificate programs, while the BoK, experiential and educational elements are applicable to certification process requirements.

6. Professional Requirements for Medical Professionals within the Cannabis and Hemp Industries

6.1 The medical-related professions are listed in **Table 1**. The general requirements, experience, education, and BoK for each profession are provided in the section specified.

6.2 The profession titles used in this guide represent potential titles. The titles used are not intended to replace existing job titles, which fall under the purview of the employing organization. The administering bodies determine the titles for the certificate and certification programs.

6.3 A medical professional is licensed and certified by the governing authority to provide medical advice, typically responsible for periodic, continuing medical education to remain current in their field of expertise.

6.4 The scope of a medical professional differs depending on the jurisdiction but generally includes doctors, dentists, nurses, hospice workers, emergency medical technicians, and other trained caregivers.

6.5 The type of medical professional legally permitted to provide medical advice on cannabis and hemp varies depending on the jurisdiction.

³ Available from ASTM at <https://www.astm.org/form-style-for-astm-stds>.

7. Cannabis and Hemp Medical Professionals

7.1 *Professional Roles*—Cannabis and hemp medical professionals should:

7.1.1 Be able to provide safe medical advice to mitigate symptoms and treat ailments based on the medical science of cannabis and hemp.

7.1.2 Be familiar with the subject matter articulated in the BoK.

7.2 *Experience*—A medical professional in the cannabis and hemp industries must:

7.2.1 Be a licensed/certified medical professional with legal authority to provide medical advice in their area of expertise, including any continuing medical education requirements that exist in their jurisdiction.

7.3 *Education*—A medical professional in the cannabis and hemp industries must:

7.3.1 Be a licensed/certified medical professional who has minimum educational requirements, science-based knowledge/training, and aspects of professionalism in addition to having completed the required accredited course/ASTM guidelines to provide medical advice about cannabis and hemp.

7.4 *Body of Knowledge (BoK)*—Medical professionals in the cannabis and hemp industries should demonstrate comprehension of the BoK summarized in [Table 2](#).

TABLE 2 Cannabis and Hemp Medical Professional Body of Knowledge (BoK)

BoK	Section ^A
Legal Landscape of Cannabis and Hemp	A1.1
History of Cannabis and Hemp in the World	A1.2
The Endocannabinoid System	A1.3
Cannabinoids, Terpenes, and Opioids	A1.4
Delivery Systems for Medical Cannabis and Hemp	A1.5
Patient-centered Dosing	A1.6
Laboratory Testing	A1.7
Clinical Practice and Broad Therapeutic Uses	A1.8
Cannabis and Opioids	A1.9

^A Details for each BoK topic are provided in [Annex A1](#).

8. Keywords

8.1 body of knowledge; cannabis; caregiver; certificate; certification; dentists; doctors; hospice; marijuana; medical; nurses; professions; technician; training

ANNEX

(Mandatory Information)

A1. BODY OF KNOWLEDGE (BoK) DETAILS

A1.1 *Legal Landscape of Cannabis and Hemp – Cannabis Laws and Regulations*—Understand the legal terrain of medical cannabis and hemp in their area of jurisdiction, including a legal perspective of relevant medical cannabis and hemp regulations, and what clinicians may and may not do when discussing cannabis and hemp in the context of a patient visit, including:

A1.1.1 An overview of cannabis and hemp laws and regulations.

A1.1.2 Country laws/laws in their area of jurisdiction.

A1.1.3 Legal restrictions for medical professionals in their area of jurisdiction.

A1.2 *History of Cannabis and Hemp in the World*—Understand the historical context of cannabis and hemp in a medical context around the world, including:

A1.2.1 Early history of cannabis and hemp use around the world.

A1.2.2 Cannabis and hemp in the West/cannabis in the East.

A1.2.3 Prohibition around the world.

A1.2.4 The medical implications of U.S. prohibition in the U.S. and on the world.

A1.2.5 Medical cannabis and hemp today in the world.

A1.2.6 Hemp versus cannabis in a medical context.

A1.3 *The Endocannabinoid System*—Understand how the 1964 discovery of THC and CBD led to the 1988 discovery of the Endocannabinoid System, and how and why endogenous and external cannabinoids interact with CB1 and CB2 receptors to treat a vast number of illnesses, including:

A1.3.1 The discovery of the endocannabinoid system.

A1.3.2 The endocannabinoid system as the body’s super-computer.

A1.3.3 An overview of the endocannabinoid system (ECS).

A1.3.4 Endocannabinoids.

A1.3.5 ECS receptors.

A1.3.6 How cannabinoids attach to receptors.

A1.3.7 Endocannabinoids and human thriving behavior.

A1.3.8 Infant and early childhood development.

A1.4 *Cannabinoids, Terpenes, and Opioids*—Understand endogenous and exogenous cannabinoids and the mechanisms through which they interact with the ECS, other cannabinoids and terpenes naturally occurring in cannabis and hemp, and the differences between treating with botanical medicines versus single-molecule compounds, including:

A1.4.1 Minor cannabinoids: THCA, THCV, CBG, CBC, CBN, CBDV.

A1.4.2 Terpenes.