ACMD

Advisory Council on the Misuse of Drugs

Chair: Prof Owen Bowden-Jones
Consumer CBD working group Secretary: Alex Wendland
1st Floor (NE), Peel Building
2 Marsham Street
London
SW1P 4DF
ACMD@homeoffice.gov.uk

Kit Malthouse MP
Minister of State for Crime, Policing and Justice
2 Marsham Street
London, SW1P 4DF

17 December 2021

Dear Minister,

Re: Advice on consumer CBD products

We are pleased to enclose the report of the Advisory Council on the Misuse of Drugs (ACMD) on Consumer Cannabidiol (CBD) products. The ACMD was commissioned in January 2021 to advise the government on establishing a legal framework for consumer CBD products.

To respond to this commission, the ACMD formed a Working Group who have reviewed the literature, consulted with industry and analytical laboratories, issued a public call for evidence and sought information regarding testing from the Government Chemist's Team and Defence Science and Technology Laboratory, amongst others.

CBD products, which are available to purchase online or on the high street, are sold for their potential to produce 'wellbeing' benefits. Currently, the most commonly sold CBD product is CBD oil, however, the range of products containing CBD is expanding and includes food supplements, drinks, cosmetics and liquids for vaping.

In your commissioning letter, you asked us to recommend appropriate levels of THC in consumer CBD products. A major challenge for recommending a single dose level for THC is how applicable it is to consumer CBD products consumed by different routes of administration, hence setting a single concentration limit that applies to all consumer CBD products would not be appropriate. This report contains recommendations for next steps and highlights the importance for the Home Office to work with regulatory authorities.

This report explores:

- the dose at which cannabinoids have no detectable psychoactive effect on humans;
- the analytical capabilities to test for these cannabinoids; and,
- the feasibility of production of consumer CBD products with low levels of controlled cannabinoids.

The following conclusions were reached:

- Extraction of controlled phytocannabinoids from consumer CBD products is unlikely to be a viable means of obtaining these drugs for illicit use.
- It would be appropriate to set specific limits for the content of Δ^9-THC and its precursor Δ^9-THCA (i.e. Δ^9-THCA-A and Δ^9-THCA-B) in consumer CBD products.
- Plant-derived consumer CBD products would not contain sufficient controlled phytocannabinoids (other than Δ^9-THC) or their precursor acids to produce any pronounced psychoactive effects unless they were added to the product (i.e. spiked). To prevent the possibility of spiking a limit should be set for all controlled phytocannabinoids in consumer CBD products.
- The dose limit for total Δ^9-THC (Δ^9-THC plus Δ^9-THCA) should be 50 micrograms (µg) in a unit of consumption (where a unit of consumption or 'single serving' is the typical quantity of a CBD product consumed on one occasion).
- At the recommended levels the controlled phytocannabinoids present in consumer CBD products are highly unlikely to produce any harmful effects.
- Setting a single concentration limit that applies to all consumer CBD products would not be appropriate.
- Further research is needed to confirm whether conversion of CBD to Δ^9-THC by extreme heating can occur and its relevance to the processes involved in CBD vaping evaluated.
- Currently the methods for extraction, separation and quantification of controlled phytocannabinoids in consumer CBD products are not sufficiently robust with regards to sensitivity, accuracy and reproducibility.
- Laboratories assessing compliance should be accredited to the ISO standard and producers should use laboratories which hold that accreditation to perform their quality assessment testing.

The ACMD has made the following recommendations to provide a legal framework to control the amounts of phytocannabinoids in consumer CBD products under the Misuse of Drugs Act 1971;

Recommendation 1

That the total dose of Δ^9-THC (including Δ^9-THCA, as calculated using Equation 1 in the report) and all other controlled phytocannabinoids in consumer CBD products be controlled. The dose of each controlled phytocannabinoid should not exceed 50 micrograms (µg) per unit of consumption.

Note 1. A unit of consumption or 'single serving' being defined as the typical quantity of a CBD product consumed on one occasion.

Lead organisation: Home Office.

Measure of impact: This will have been implemented by a change to the Misuse of Drugs Regulations 2001 (MDR).

Recommendation 2

That regulatory authorities ensure that any consumer CBD product permitted to market has limits on the content of controlled phytocannabinoids such that the dose of Δ^9-THC (including its precursor Δ^9-THCA) and of each of the other controlled phytocannabinoids does not exceed 50 micrograms (µg) per unit of consumption.

Lead organisations: Home Office liaising with the appropriate regulatory authorities and their devolved counterparts where appropriate:

- Food Standards Agency (FSA)
- Department for Business, Energy and Industrial Strategy (BEIS): (Office for Product Safety and Standards (OPSS)
- Department for Health and Social Care (DHSC): Office for Health Improvement and Disparities (OHID); and,
- Department for Environment Food and Rural Affairs (DEFRA) (UK REACH)

Measure of impact: Evidence of compliance with the permitted levels. The ACMD advise another analysis of the controlled phytocannabinoid content of consumer CBD products is performed by the Defence Science and Technology Laboratory (Dstl) two years after the implementation of the regulations to check the level of compliance.

Recommendation 3

A further inter laboratory comparison trial (ring trial) should be commissioned specifically to support the capability of testing laboratories to detect controlled phytocannabinoids below the recommended maximum levels in a representative range of consumer CBD products

Lead organisation: Home Office

Measure of impact: An assessment of whether the necessary level of accuracy can be achieved in practice.

Recommendation 4

That development of more accurate testing for controlled phytocannabinoids is supported (as outlined in Notes 1 – 3 below) to allow testing capabilities to develop and be fully regulated.

Note 1: Standardised protocols should be developed for the extraction, separation and quantification of controlled cannabinoids (and their precursor acids) from consumer CBD products. These must be of sufficient reproducibility and sensitivity to

be appropriate for the measurement of the level of controlled phytocannabinoids as recommended in this report.

Note 2: As chemical reference standards are not currently commercially available for all controlled phytocannabinoids, suppliers of chemical reference materials should be encouraged to produce certified standards for those controlled cannabinoids for which standards are not currently available.

Note 3: ACMD supports the recommendation from the Dstl report (Defence Science and Technology Laboratory report, 2020b) that the analytical methods used should be accredited to ISO 17025:2017 to ensure appropriate method validation, quality control and independent assessment of the methods.

Lead organisation: Home Office.

Measure of impact: An increase in the number of laboratories that have been, or are in the process of becoming, accredited to demonstrate their capability to quantify Δ^9-THC and related controlled phytocannabinoids in CBD products.

We look forward to discussing the enclosed report with you in due course.

Yours sincerely,

Professor Owen Bowden-Jones
Chair of ACMD

Professor Graeme Henderson
Chair of Consumer CBD products working group