Abbreviated Medicinal Cannabis Guide.

For HealthCare Professionals

This is a guide only for HealthCare Professionals, and should be used in conjuction with other sources of information and the HealthCare Professionals best judgement.

Indications

Medicinal cannabis may provide beneficial alternatives to patients who have responded poorly to current medicines in terms of efficacy or tolerability or, where existing treatment options are contraindicated. Below is a summary of common conditions and which products may be suitable treatment options.

CBD dominant products	Balanced products (CBD & THC)	THC dominant products
Anxiety	Chemotherapy Induced Nausea and Vomiting (CINV)	Chemotherapy induced Nausea and Vomiting (CINV)*
Pain and Inflammation e.g., osteoarthritis	Chronic Pain (e.g., fibromyalgia, cancer-related pain, osteoarthritis)*	Chronic pain (e.g., fibromyalgia, cancer-related pain, osteoarthritis)*+
Neuropathic pain (e.g., fibromyalgia)	Appetite Stimulant	Appetite Stimulant+
Inflammatory Bowel Disease	Insomnia	Insomnia+
Epilepsy	Muscle Spasms (Multiple Sclerosis)	Cachexia/Wasting (cancer / AIDS)

* Medicinal cannabis may be an alternate or adjunct therapy to opioids, allowing patients to reduce their dependency on opioids for pain.

+ For CINV, Chronic Pain, Appetite Stimulant or Insomnia it is recommended to start with a balanced product, if there is no response transition to a THC dominant product and start with a low dose.

Safety: Side-Effects and Contraindications

Each patient may respond differently to medicinal cannabis and there may be unwanted side effects.
Below is a summarized table of known side effects and their prevalence.

Table 1: A summary of known side effects of medicinal cannabis n= 10,000.[1]

Most Common	Common	Rare
Drowsiness/fatigue (15%)	Euphoria (1.7%)	Tachycardia (0.9%)
Dizziness (10.4%)	Lethargy (1.7%)	Heart Palpitations (0.9%)
Nausea (5.4)	Blurred Vision (1.5%)	Psychosis / Paranoia (0.8%)
Dry Mouth (5.2%)	Diarrhoea (1.4%)	Headache (0.5%)
Increased Appetite (5.0%)	Depression (1.3%)	Dissociation (0.2%)
Attention disruption (4.7%)	Mouth / throat irritation (1.1%)	
Anxiety (~4.0%)	Vomiting (1%)	
Cognitive effects (~4.0%)		

Products containing THC may cause impairment depending on both the patient's tolerance and the dose given. It is recommended that patients self-assess after taking these medicines and avoid driving and operating machinery if they feel impaired. These products will also **cause a positive test result in urine drug testing** in the workplace, and this should be discussed with the patient.

It is not recommended to prescribe medicinal cannabis to pregnant or breastfeeding women as THC can pass through to breast milk. Care should be taken when prescribing medicinal cannabis to women taking estrogen and progesterone-based contraceptive pills as it could interfere with their metabolism.

Due to the psychoactive nature of THC, extra care is needed when assessing suitability for patients with a history of **depressive disorders and psychosis.** Elderly patients must be considered due to psychiatric sensitivity. **Patients who have a history of substance abuse** may be more prone to abuse the balanced and THC dominant products.

Dosing and titration

Products can be taken on their own, or multiple products can be combined to provide a tailored treatment plan. This modular approach allows prescribers to fine-tune the appropriate dose of CBD and THC for each patient and symptom.

For example, a patient with inflammation may take a CBD dose during the day, and a balanced, or THC-dominant dose at night to help with sleep.

Cannabis-based medicines are well-tolerated, with no known fatal dose of THC or CBD. Unlike other medicines, cannabis can be taken on an as-needed basis. Patients are encouraged to self-asses their symptoms and work with their doctor following a dosing schedule.

Droppers come with oil products and allow patients to measure out doses typically in 0.1 mL increments. CBD is well-tolerated and daily doses can exceed 1000 mg; however due to the psychoactive nature, THC should not exceed 20 – 30 mg / day.

Opposite is a summary of suggested dosing regimens, but prescribers are encouraged to work with patients and tailor each titration regimen appropriately.

Onset of action

Oil or solid products are slower acting compared to smoking or vaping medicinal cannabis. The onset of action can take 60-180 minutes by the oral route and has a more sustained effect. The onset of action and duration can vary from patient to patient.

Dosing regimens for medicinal cannabis

Finding the right therapeutic dosage is a very individualized process for each patient. Special consideration should be taken with higher doses of THC.

Dosing Guide for a CBD dominant oil (eg evalaCann THC ≤1 mg: CBD 20 mg). Routine protocol for medical cannabis dosing and administration[2]

Starting cannabinoid type	CBD-predominant
Starting CBD dose	CBD-predominant 5 mg twice daily
CBD titration	↑ CBD-predominant 10 mg/day (total daily dose) every 2 to 3 days
When to add THC	If patient is not reaching treatments goals when CBD dose is ≥ 40 mg/day
Starting THC dose	2.5 mg/day
THC titration	↑ 2.5 mg every 2-7 days until goals are met or a maximum dose of 40 mg/day THC is reached*

*Refer for expert consultation if considering > 40 mg/day THC

Dosing Guide for a Balanced medicinal cannabis product (eg evalaCann THC 10 mg: CBD 15 mg). Rapid protocol for medical cannabis dosing and administration[2]

Starting cannabinoid type	Balanced THC:CBD
Starting dose	2.5-5.0 mg of each cannabinoid once or twice daily
Titration amount	↑ 2.5-5 mg every 2-3 days of each cannabinoid once or twice daily until goals are met or a maximum dose of 40 mg/day THC is reached*

*Refer for expert consultation if considering > 40 mg/day THC

Dosing Guide for a THC dominant oil (eg evalaCann THC 10 mg: CBD ≤1 mg). Do not exceed 20-30 mg THC / day

Day 1-2	2 mg THC / day
Day 3-4	3 mg THC / day
Day 5-6	4 mg THC / day
Day 7-8	5 mg THC / day
Day 9-10	6 mg THC / day
Day 11-12	7 mg THC / day
Day 13-14	8 mg THC / day

Notes

Adult patients are advised to take THC 90-120 minutes before bedtime to help with sleep. Increase the dose every two days until the patient is comfortable sleeping through the night. THC will remain in the body for 8-12 hours, depending on THC tolerance, do not drive or operate heavy machinery if impaired. High doses of THC during workhours are not advisable. The daily dose can be spread across across the day / night and it is recommended to start at night only.

Dosing instruction for the patient, for a 10mg/mL THC only containing product, would mean the daily dose divided by total mg per ml. For example 2mg (daily dose) / 10mg = 0.2 mL of product.

Drug interactions with cannabis[3]

THC and CBD are metabolized by enzymes in the CYP450 superfamily; CYP3A4, CYP2C9, and CYP2C19[4]. Caution should be taken with medicines which are substrates of the enzymes mentioned below:

Cannabinoid	Enzymes	Specific Drug or Class	Interactions
CBD	CYP3A4, CYP2C19, CYP1A2, CYP2B6, CYP2C8, CYP2C9, UGT1A9, UGT2B7	Clobazam	Coadministration of CBD produces a 3-fold increase in plasma concentrations of N-desmethylclobazam, the active metabolite of clobazam (a substrate of CYP2C19). This may increase the risk of clobazam-related adverse effects.
		CNS depressants and alcohol	Concomitant use of CBD with other CNS depressants may increase the risk of sedation and somnolence.
		Valproate	Concomitant use of CBD and valproate increases the incidence of liver enzyme elevations. Discontinuation or reduction of CBD or concomitant valproate should be considered.
THC	CYP2C9, CYP3A4	Alcohol	THC may enhance the CNS depressant effect of alcohol
		Amphotericin B	THC may displace amphotericin B from its protein-binding sites, leading to an increased concentration of active, unbound drug.
		Anticholinergic agents	These agents may enhance the tachycardic effect of THC-containing products.
		CNS depressants	THC may enhance the effects of CNS depressants.
		Cyclosporine (systemic)	THC may displace cyclosporine from its protein-binding sites, leading to an increased concentration of active, unbound drug.
		Ketoconazole	May increase plasma concentration of THC and CBD due to poor metabolism[4].
		Ritonavir	Ritonavir may increase the serum concentration of THC.
		Statins	The risk of myopathy increases.
		Sympathomimetics	THC may enhance the tachycardic effects of these drugs.
		Warfarin	THC may displace warfarin from its protein-binding sites, leading to an increased concentration of active, unbound drug.

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2. Bhaskar, A.; Bell, A.; Boivin, M.; Briques, W.; Brown, M.; Clarke, H.; Cyr, C.; Eisenberg, E.; de Oliveira Silva, R. F.; Frohlich, E.; Georgius, P.; Hogg, M.; Horsted, T. I.; MacCallum, C. A.; Müller-Vahl, K. R.; O'Connell, C.; Sealey, R.; Seibolt, M.; Sihota, A.; Smith, B. K.; Sulak, D.; Vigano, A.; Moulin, D. E. Consensus Recommendations on Dosing and Administration of Medical Cannabis to Treat Chronic Pain: Results of a Modified Delphi Process. J Cannabis Res 2021, 3 (1), 22. https://doi.org/10.1186/s42238-021-00073-1.
3: Sulak, D. Handbook of Cannabis for Clinicians: Principles and Practice; W. W. Norton & Company, 2021.
4: Stout, S. M., & Cimino, N. M. (2014). Exogenous cannabinoids as substrates, inhibitors, and inducers of human drug metabolizing enzymes: a systematic review. Drug metabolism reviews, 46(1), 86–95. https://doi.org/10.3109/03602532.2013.849268

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