Medical Cannabis as Adjunctive Treatment to Mitigate Adverse Events in Patients Using High-dose Opioids for Chronic Non-cancer Pain (CNCP)

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Background

- Chronic non-cancer pain (CNCP) affects 20% of the adult population.[1]
- CNCP is commonly treated with opioids despite the limited evidence for efficacy and the potential for serious adverse events including addiction, respiratory depression, and death.
- US & Canadian guidelines advise clinicians to re-assess opioid doses ≥50 mg morphine milligram equivalents (MME) & avoid doses ≥ 90 mg MME due to the exponential increase in risk of opioid-related harm.[2,3]
- Data has emerged indicating cannabis opioid synergy, suggesting cannabis as an adjunctive therapy to optimize pain control.[4,5]
- We propose this clinical tool to facilitate a safe trial of medical cannabis therapy in patients with CNCP who are receiving ≥ 90mg MME daily.
- This tool was developed based on clinical experience, available data and guidelines.

1) Pre-Cannabis Initiation

Step 1: Assessment

- Consider cannabis in CNCP patients prescribed an opioid dose **≥ 90 mg MME** (weaker recommendation for **50-90 mg MME**)
- Use validated measures to assess baseline pain
  - Brief Pain Inventory (BPI)
- Assess individual risk initiating cannabis therapy[6]:
  - Drug Interactions
  - Personal/family history of psychiatric illness
  - Risk factors for cannabis use disorder
  - Pregnant, planning to become pregnant, breastfeeding
  - Unstable cardiovascular disease
  - Respiratory disease (if smoking cannabis)
- If concerns arise refer to a clinician with expertise in medical cannabis

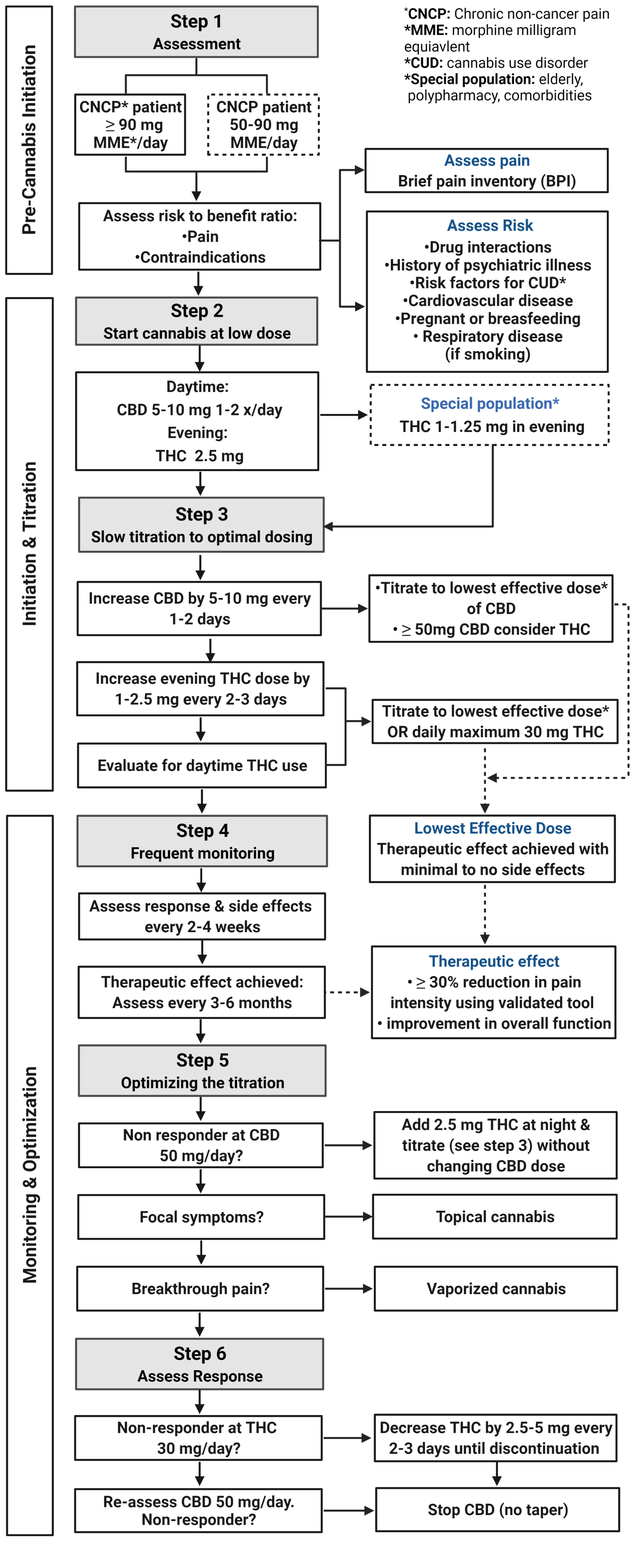
2) Initiation & Titration

Step 2: Start cannabis at low dose

- **Oral ingestion > smoked cannabis**
  - Allows for precise dosing & reduces potential respiratory harms
- For **inflammatory pain**
  - Start with CBD-dominant **chemovar** (strain) for daytime use
  - **Start 5-10 mg of CBD, 1-2 times/day**
- For CNCP patients with **difficulty sleeping and/or night pain**:
  - Start with **2.5 mg THC in the evening** (minimizes side effects)
  - **Elderly, polypharmacy, comorbidities** start **1-1.25 mg THC**

Step 3: Slow titration until optimal dosing

- To **reduce side effects:**
  - Choose orally ingested oils
  - Use CBD-dominant chemovars during daytime
  - Reserve THC strains to evening use
- If using **THC-based** or **1:1 THC:CBD** products:
  - **Increase dose** by **1-2.5 mg** every **2-3 days**
  - Begin titration with evening dose
- **For CBD-dominant products**:
  - **Increase dose** by **5-10 mg** every **1-2 days**
  - **Titrate** until **50 mg/day of CBD**
- Evaluate for daytime THC use
- Titrate daily THC to the **lowest effective dose** where**:**
  - **Therapeutic effect is reached**
  - Side effects are tolerated
- **Therapeutic effect:**
  - **≥30% reduction in pain intensity** using a validated tool and/or
  - An improvement in overall function



Flowchart to facilitate medical cannabis use in CNCP patients prescribed high doses of opioids

3) Monitoring & Optimization

Step 4: Frequent monitoring

- During initial titration, re-assess response & every **2–4-weeks**
- Re-assess every **3-6 months** once **therapeutic effect** is reached:

Step 5: Optimizing the titration

- If using **CBD-dominant oil** at **50** mg daily and **NOT** reaching therapeutic effect:
  - **Add 1-2.5 mg THC at night +/- day** & titrate without increasing CBD dose
- **Additional Options**
  - Topical cannabis for focal symptoms
  - Vaporized cannabis for breakthrough pain (rapid onset of action)

Step 6: Assess response

- If a patient receives **≥30 mg/** of **THC** without therapeutic effect = **"non-responder"**:
- **Decrease THC** dose by **2.5-5 mg every 2-3 days** until **discontinuation**
  - Slow titration if patient experiences rebound pain, insomnia or anxiety
  - If on CBD, **stop CBD after THC discontinuation** (no taper)
- Reassess CBD response
  - Non responder? ➡ **Stop CBD** (no taper)

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