

Medical cannabis for chronic pain in the UK: a 12-month longitudinal observational study of 1721 individuals

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Background: Randomized controlled trials (RCT) have yielded conflicting evidence regarding cannabis-based products for medicinal use (CBPMs) in chronic pain.¹ Trials are particularly hampered by heterogeneity in treatments and participants as well as recognised inter-individual variability in treatment dosing and response.² There have been calls for greater consideration of real-world data (RWD) to assess treatment efficacy.

Methods: Project Twenty21 is a UK initiative collecting RWD, incentivising participation via discounted access to certain CBPMs.³ We present 12-month outcomes from the 1721 individuals with chronic pain enrolled in the registry.

Among responders, **improvements in pain were sustained for 12-months**. In the cannabis-naïve cohort, 36% participants were responders. Prescription **opioid use was less prevalent during follow-up** versus baseline, amounting to a 21.2% relative (9.8% absolute) reduction at 12-months ($p < 0.001$).

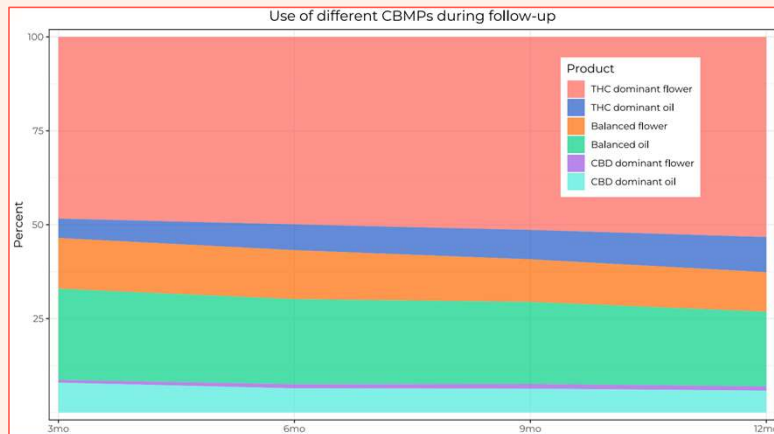


Figure 1: Use of different CBPMs over follow-up as a percentage of products in use

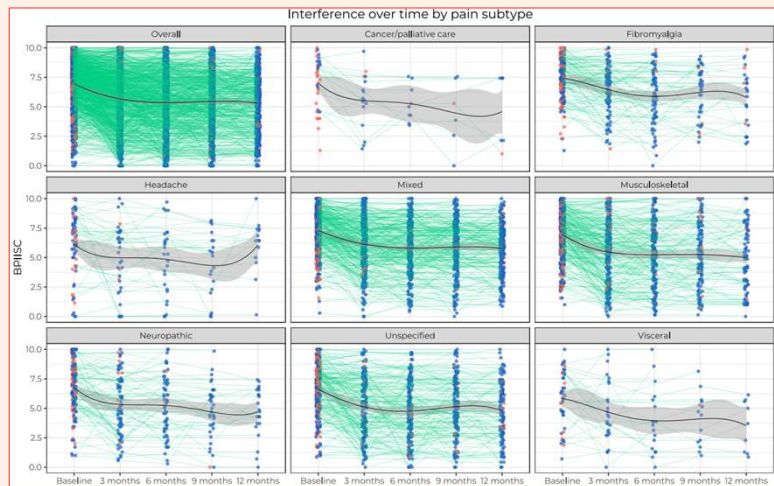


Figure 2: Pain interference by pain subtype. Blue = Using THC, Red = Not using THC

Results: The median age was 43yrs, and 59% were male. 15% were cannabis-naïve, and this group were two-thirds female. Δ^9 -tetrahydrocannabinol (THC) dominant flower was the most prescribed treatment, followed by balanced oils. Among cannabis-naïve participants, balanced oils were the most prescribed. 1171 participants had at least one follow-up. **Average pain interference, pain severity, sleep score, and quality of life were improved at all time-points vs baseline** ($p < 0.05$), with scores plateauing after 6-months. **42% participants were considered "responders"** (pain interference or severity $> 30\%$ improved).

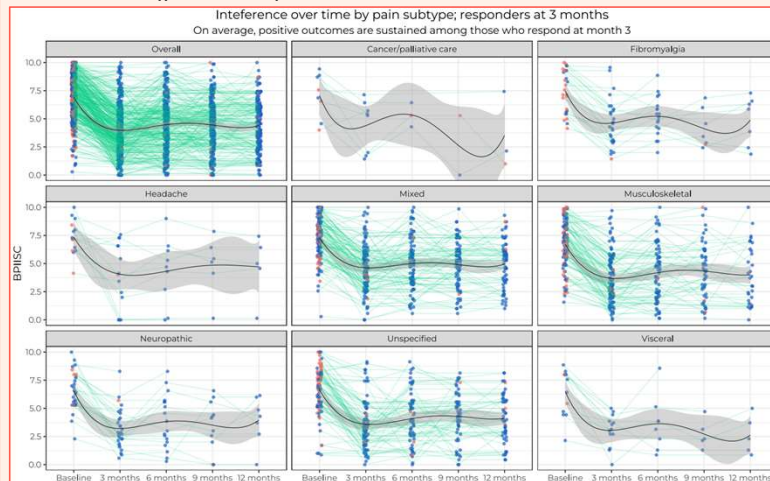


Figure 3: Responders at 3-months: pain interference. Blue = Using THC, Red = Not using THC

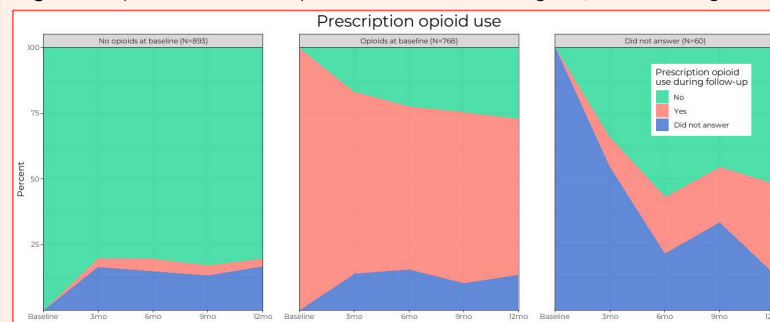


Figure 4: Prevalence of opioid use over follow-up, stratified by baseline use.

Conclusion: A substantial proportion of individuals with chronic pain may benefit from CBPMs, demonstrating reduced pain scores and prescription opioid use. 6-months may be the optimal trial duration to assess response, and benefits are generally durable among responders.

References:

1. Fisher, E et al (2021), Cannabinoids, cannabis, and cannabis-based medicine for pain management: a systematic review of randomised controlled trials. PAIN 162():p S45-S66
2. Notcutt, W et al. (2004), Initial experiences with medicinal extracts of cannabis for chronic pain: Results from 34 'N of 1' studies. Anaesthesia, 59: 440-452.
3. T21 - The UK's largest Medical Cannabis observational study, URL: www.drugscience.org.uk/t21 Accessed 12/11/2023