Medicinal Cannabis and Cannabis Use Disorder

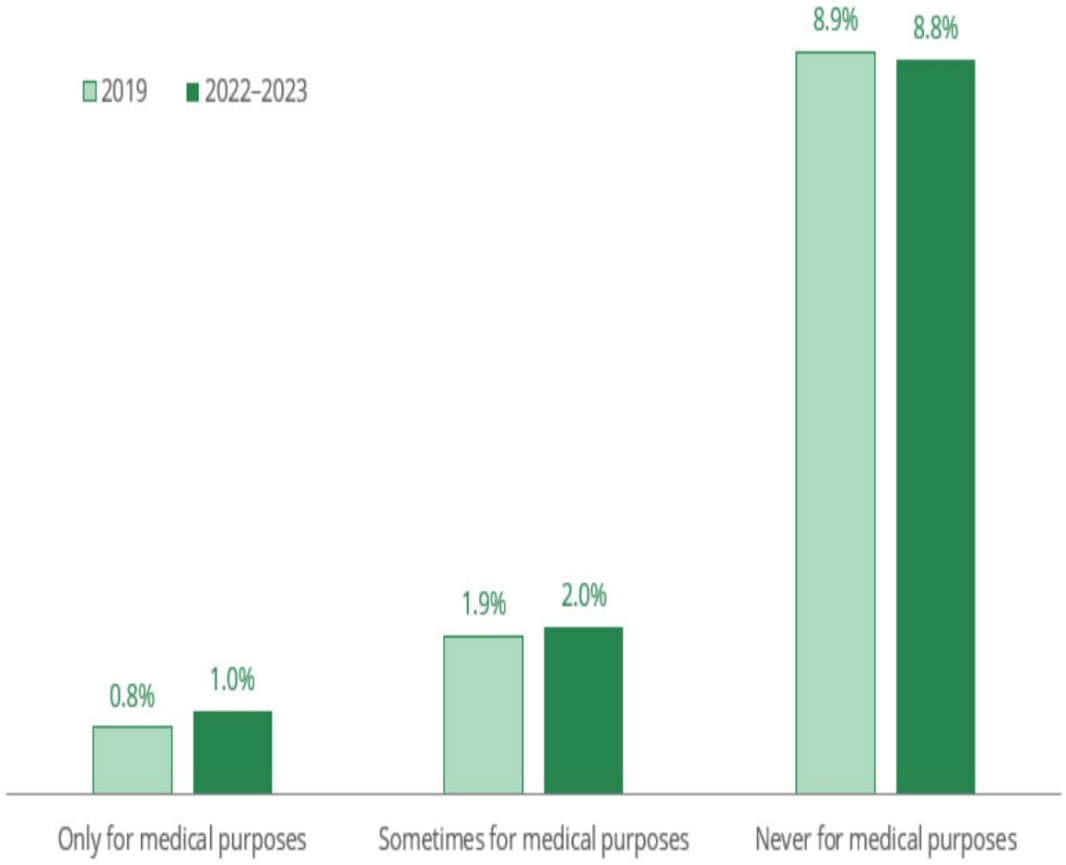
Professor Nicholas Lintzeris MBBS, PhD, FAChAM
Drug & Alcohol Services, SESLHD
University of Sydney, Division Addiction Medicine

Overview presentation

1. An overview of medical cannabis in Australia
2. Can / should we treat cannabis use disorder with medicinal cannabis?
3. How is the AOD system responding?

Cannabis use in Australia (2022-23 NHDS)

Figure 1: Medical use of cannabis in Australia in the past 12 months, people aged 14 and over, 2019 and 2022-2023



- Estimated 10% (9-22%) of people who use cannabis (past year) develop dependence and >30% in people using cannabis regularly (Leung et al. 2020)
- Cannabis accounts for ~20% of AOD episodes as PDOC

Existing treatment approaches for CUD

- Conventional treatments
  - Psychological therapies: CBT and motivational enhancement.
  - Withdrawal management: symptomatic medications (e.g. BZDs), supportive counselling
  - Self-help approaches: Marijuana Anonymous, Smart Recovery
  - Outcomes are not “great” … estimated that >80% relapse to heavy cannabis use within 1-6 months of completing treatment
- Need strategies that combine ‘counselling’ + medications (+ peer support)
  - Systematic reviews: yet to identify effective medications for treating CUD
- Increasing interest and use of medicinal cannabis for treating CUD

Medicinal cannabis in Australia

- Unapproved medications by TGA that can be prescribed under SAS or Authorised Prescriber schemes
- Any doctor can prescribe – no training or credentialling required
- Quality standards of production
- Range of options
  - Cat 1 (CBD only) to Cat 5 (THC only)
  - Products: oral liquid, capsules, herb for vaporization, vape inhaler
- THC is an S8 medication
  - Requires State S8 permit if treating patient with drug dependence
  - THC is recorded in Safescript

TGA Categories of MC products		
Category 1	CBD product (CBD ≥98%)	S4
Category 2	CBD dominant product (CBD ≥60%, <98%)	S8
Category 3	Balanced product (CBD <60% & ≥40%)	S8
Category 4	THC dominant product (THC 60–98%)	S8
Category 5	THC product (THC >98%)	S8

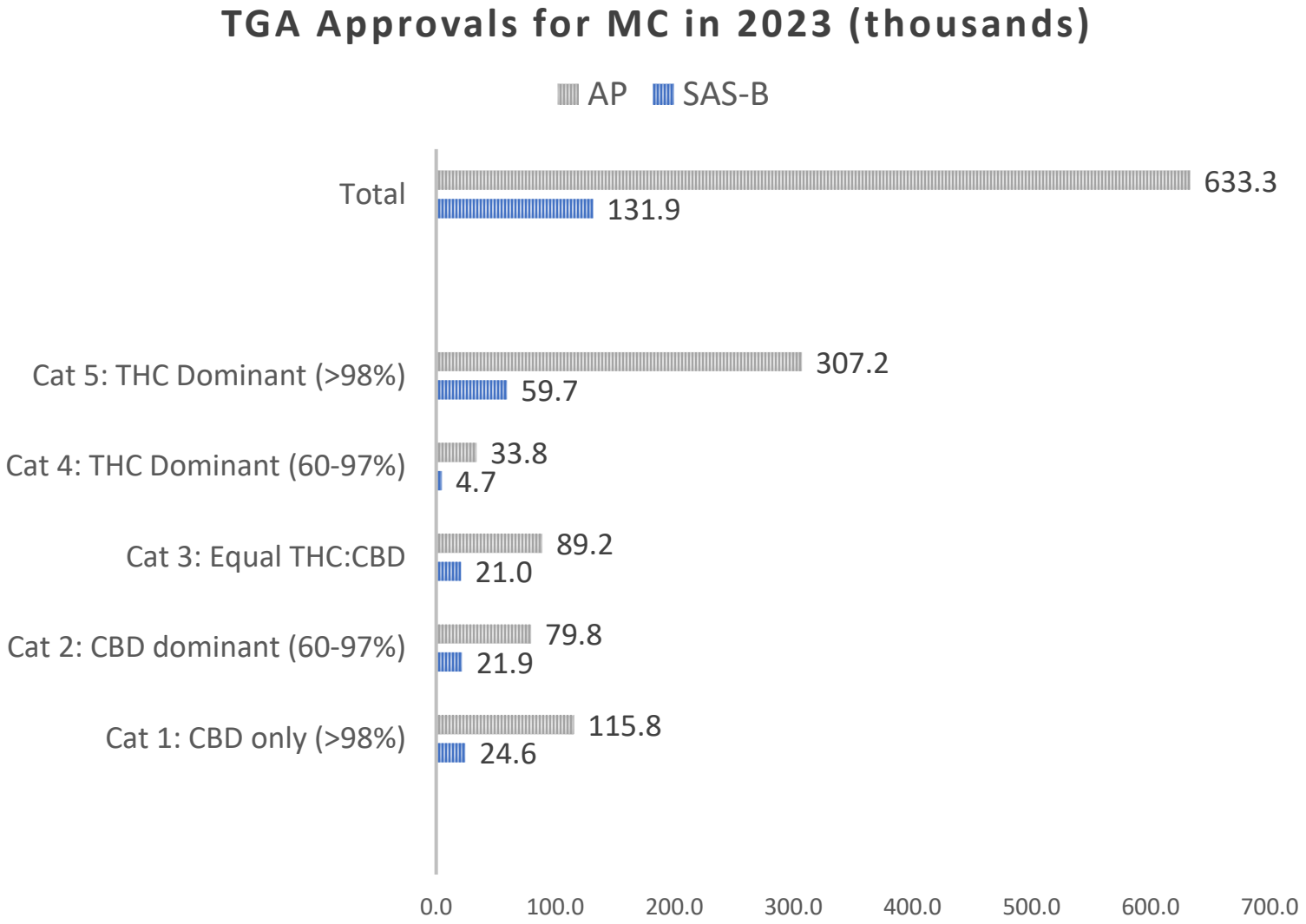
THC

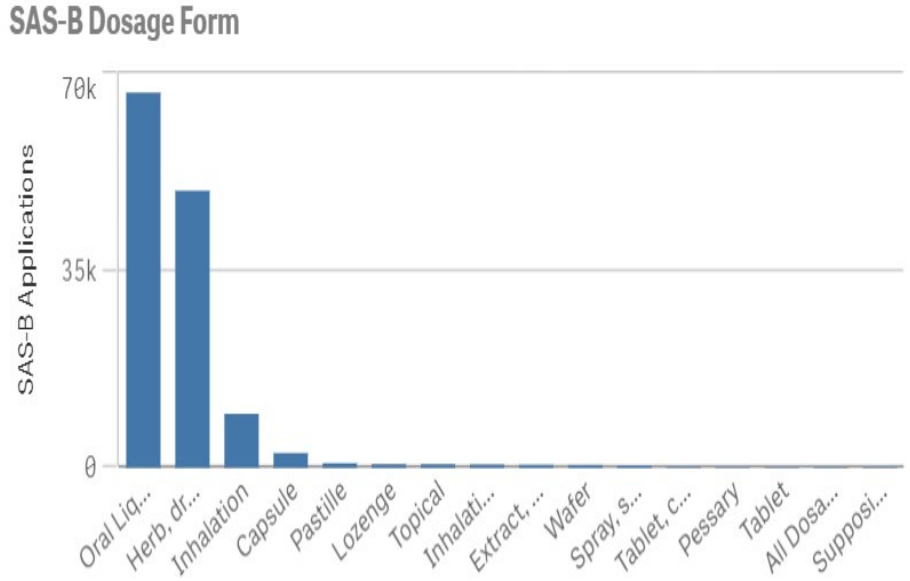
- Partial agonist at CB1 receptor
- Psychoactive effects: sedation, euphoria, mild analgesic, anti-emetic, antispasmodic, transient cognitive impairment
- THC Doses
  - Oral: 10-20mg / day, up to 80-100mg if dependent
  - Herb: 5-20mg / day, up to 500mg/day if dependent
- $10-20 per gram for 25% THC flower

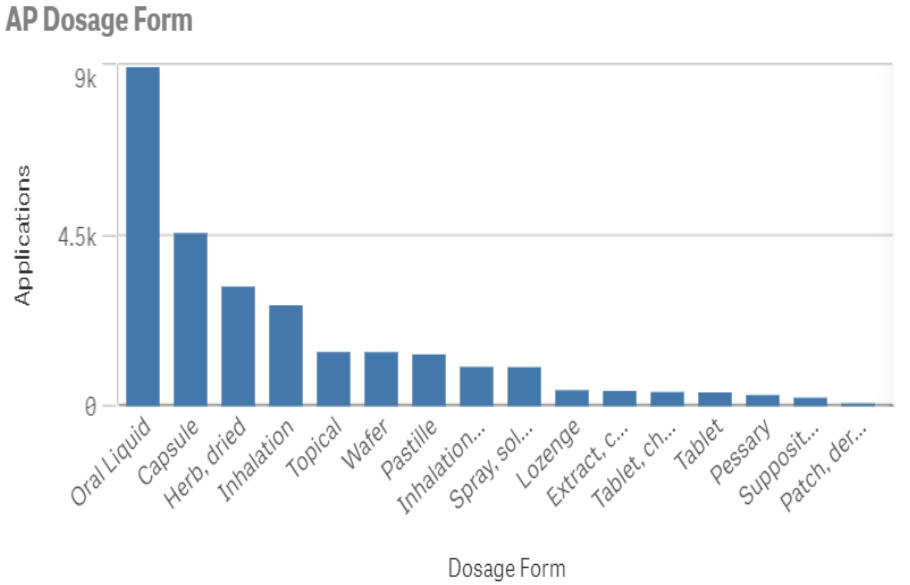
Cannabidiol (CBD)

- A non-psychoactive cannabinoid
  - Anticonvulsant effects
  - Anti-inflammatory properties
  - Anxiolytic, antipsychotic, anti-craving effects
  - Neuroprotective: ?dementia
  - Not intoxicating, non-addictive
- Doses:
  - ?200-1200mg oral / day prescribed
  - 10-50mg oral / day OTC for ‘wellness’
- Main areas of interest: epilepsy, mental health, neurodegenerative conditions, addictions, auto-immune
- More expensive than THC ($100-200/week for effective doses)

What is being prescribed? (TGA data)







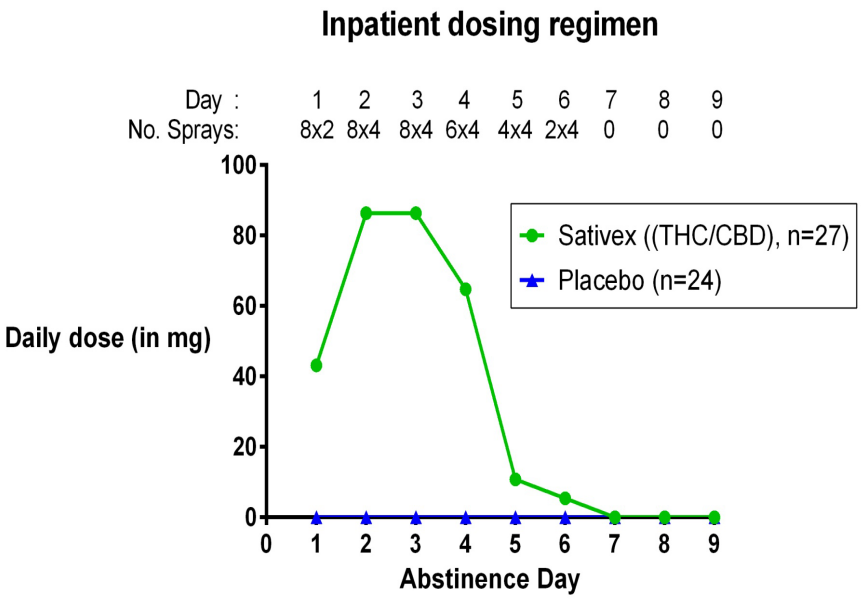
Medicinal cannabis in treatment of Cannabis Use Disorders

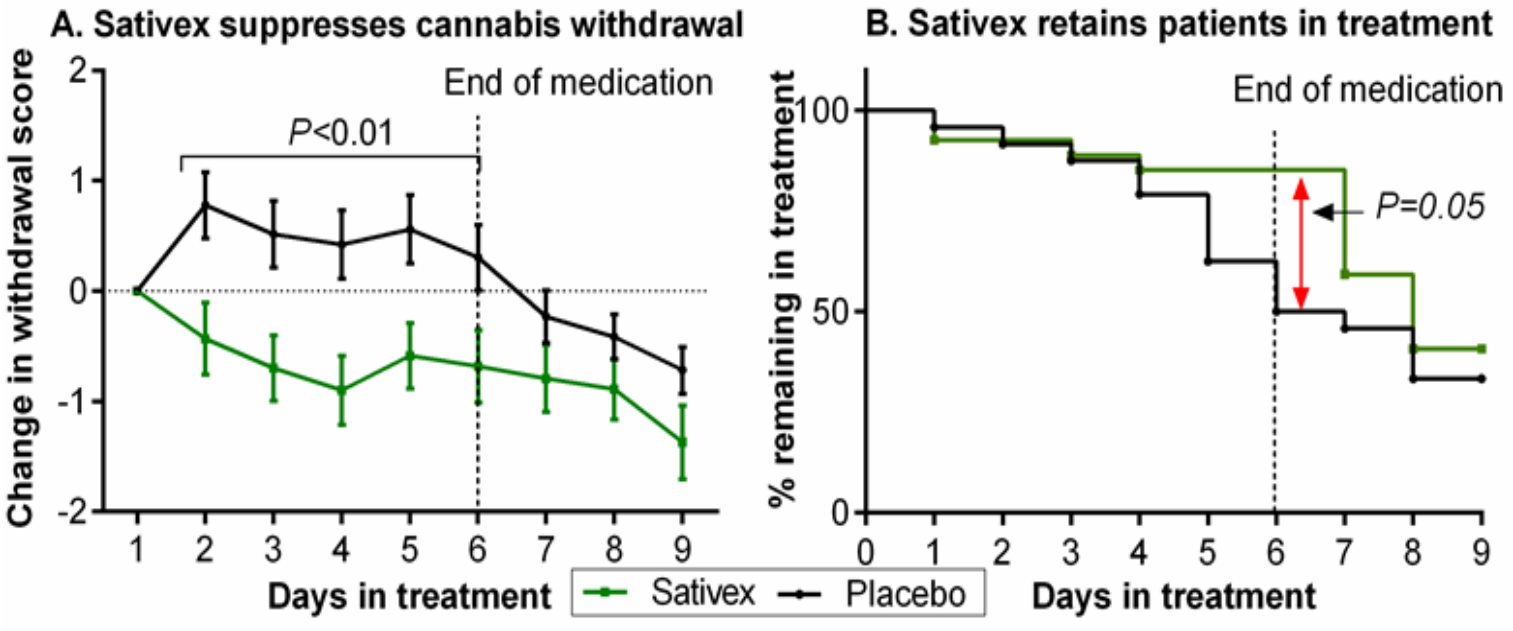
Systematic review:

Vuilleumier C, et al. Cannabinoids in the Treatment of Cannabis Use Disorder: Systematic Review of Randomized Controlled Trials. Front Psychiatry. 2022; 13:867878

Treating cannabis withdrawal (Allsop et al JAMA Psych 2014)

‘Substitution’ with nabiximols reduces cannabis withdrawal symptoms with minimal rebound effect





Positive withdrawal outcomes, although 70% relapsed to regular cannabis use after 1 month

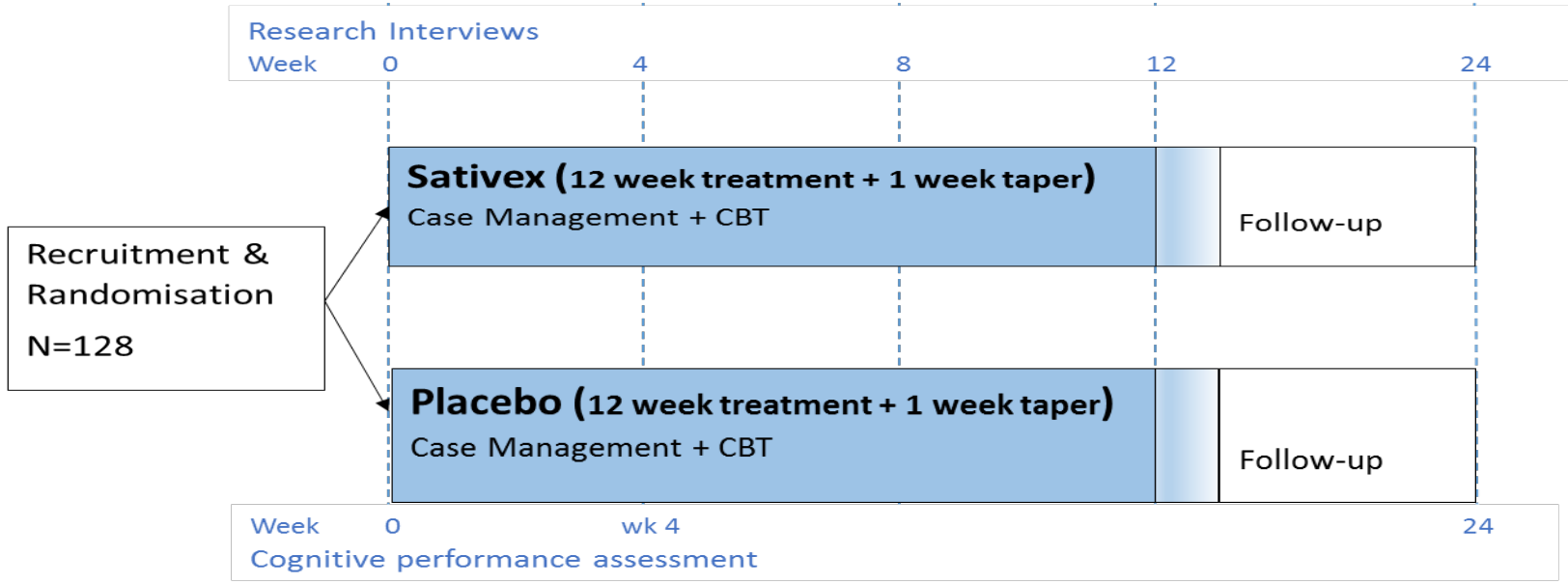
Highlights limitations of ‘withdrawal-only’ treatment

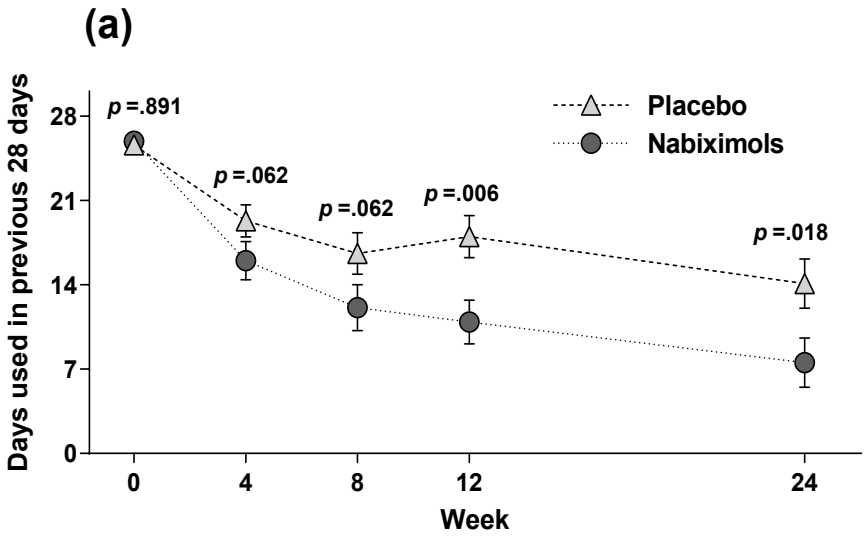
What role for THC-based medicines in management of cannabis withdrawal?

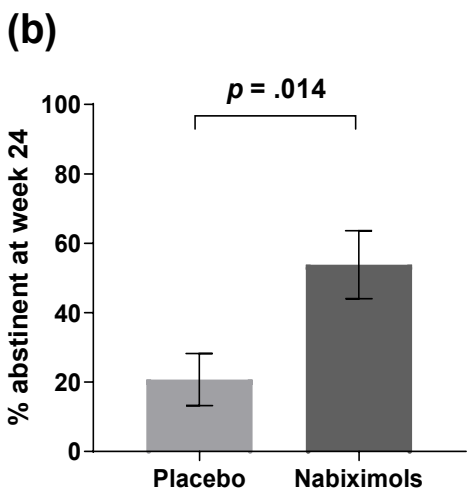
- Tapered doses of THC reduce cannabis withdrawal severity & increase completion rates
- May be considered for patients experiencing / expecting severe withdrawal
  - Most patients do not experience severe withdrawal
  - Short course of treatment (up to 1-2 weeks) to cover period of most severe symptoms
  - Doses: ?up to 50mg oral THC first 2-3 days, with tapering dose
- But …
  - withdrawal management is NOT just medication (+ monitoring, support, counselling)
  - beware limitations of withdrawal only treatment

RCT nabiximols (THC/CBD) for cannabis dependence

Lintzeris et al JAMA IM 2019







- Significantly less cannabis use in Nabiximols arm
- Benefits persisted 12 weeks after treatment finished!
- This suggest ‘NRT’ model or a ‘methadone maintenance’ model

What role for THC based medicines in treatment CUD?

- Consider stepped care approach:
  - A: stop using cannabis if you can … without treatment
  - B: stop using cannabis if you can … with counselling / withdrawal treatment
  - C: add medicinal cannabis if counselling / withdrawal alone doesn't work
- 'NRT model': 8-24 weeks treatment with goal of abstinence from all cannabis
  - Trial of withdrawal of medication: If 'coping' with dose reductions … continue; If 'relapse' to heavy use … consider longer-term treatment
- 'Methadone maintenance model': longer term treatment to reduce illicit use and harms
  - Reduce harms with oral > inhaled products; ?THC+CBD >> THC-only
  - Treatment not 'just medication': benefits of addition of counselling, support.

Are we just swapping illicit for licit cannabis? Is this medicine or are we just “legal drug dealers”?

Abstinence from cannabis is not the goal for many people

Potential harm reduction benefits

1. Safer cannabis products and cannabinoid composition than illicit sources
2. Safer route of administration: from bongs/joints to safer routes (oral, vaporiser)
3. Shift client goals over time: transition from heavy use (2-4 gms/day) to smaller amounts
4. Overcomes legal issues of prohibition with a regulated supply
5. Engage clients in health care and address other issues (e.g. mental health, tobacco use) in a population who often avoid health care services

But … if the intervention is only a 5-minute consultation every 3 months issuing a prescription for 20gm container herb each week … is it treatment?

Concerns regarding MC

- HCPs not complying with regulatory requirements or standards of good clinical practice
- Impact of business models and private medicine on clinical practice (e.g. “vertical integration”)

AMCA
Australian
Medicinal Cannabis Association

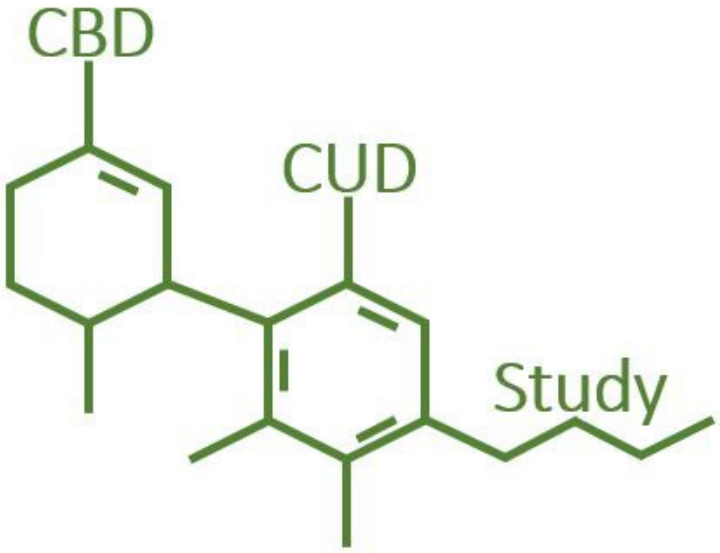
Interim Guidance regarding THC-based Medicinal Cannabis Treatment for Patients with Cannabis and/or other Substance Use Disorders

Download at
https://ausmca.org/resources/

CBD for Cannabis use disorder?

Promising but jury still out

- Case studies (Crippa et al 2013) and consumer reports (Fortin 2022) suggest CBD reduces cravings and dampens withdrawal severity
- Pilot RCT study (Freeman et al 2021): 8 week trial CBD 400mg or 800mg daily > placebo or CBD 200mg in reducing illicit cannabis use



CBD-CUD Study: RCT of CBD versus placebo for CUD enrolling Sydney, Newcastle, Melbourne

How is the AOD system responding?

- Confusion
  - Is Cannabis a drug we need to stamp out or prescribe?
  - “There is no evidence for medicinal cannabis, it’s just pseudo-legalisation”
  - Recent survey of 300 NSW OTP staff (Laila Parvaresh) – most staff indicated we should be providing MC treatment to address comorbidities (e.g. pain, sleep, MH) and strong support to use it to address CUD in OTP clients
- Logistically
  - Government sector services: unregistered medicines are very difficult to prescribe
  - NGO sector: many services struggle with historical ’anti-medication’ position
  - No guidelines, few training opportunities
- Stigma and discrimination against people with SUD continues

And what are we going to do about the thousands of Australians who develop iatrogenic dependence to cannabis from their MC use?

Thank you!

If you are interested in developing a network of AOD providers re: medicinal cannabis please contact me

nicholas.lintzeris@health.nsw.gov.au

Diagnosing dependence / substance use disorder

A. Difficulties controlling use of a drug
- Using cannabis for longer than intended
- Unable to cut down / stop
- Cravings

B. Impairments in health, social functioning and relationships because of drug use

C. Continued drug use despite risks

D. Physical signs of dependence
- Tolerance
- Withdrawal on stopping

- Approximately 10% (9-22%) of people who use non-medical cannabis (past year) develop dependence (Leung J, et al. 2020)
  - >30% in people using cannabis regularly
- Higher proportions in people using medicinal cannabis (Mills et al DAR 2022)

Cannabis withdrawal: DSM-5

Symptoms most severe in first 2-4 days, subsiding over 1-4 weeks

- 32% with 'less than daily' use,
- 46% with daily use (Gorelick et al 2012)
- 35% in medical cannabis users (Mills et al 2022)

Withdrawal symptoms reported by MC users on stopping cannabis use (Mills et al 2022)