Medical marijuana for pain and anxiety: A primer for methadone physicians

Meldon Kahan MD
CPSO Methadone Prescribers’ Conference
November 6, 2015
Conflict of interest statement

• No conflict of interest to declare
OUTLINE

• CPSO policy on medical marijuana
• Brief summary of evidence on effectiveness and harms
• Indications, precautions and dosing
• Role of methadone physicians in medical marijuana prescribing
Key messages of CPSO marijuana policy

- Don’t practice beyond scope of clinical competence
  - Implication: Should be skilled in management of severe neuropathic pain
- Weigh safety, effectiveness of dried cannabis versus alternatives, including oral and buccal pharmaceutical cannabinoids
- Assess patients for risk of addiction, diversion, psychotic disorders, mood disorders
- Don’t prescribe to those under 25: they’re at greater risk than older adults for illicit drug use, cannabis use disorder and long term cognitive impairment
Key messages (2)

• Obtain informed consent
• Advise patients of side effects and precautions, including caution with activities requiring alertness
• Start with low quantity of marijuana, and only prescribe strains low in THC
• Titrate to a dose that is effective while causing minimal euphoria or cognitive impairment
• Script should specify THC %
Key messages (3)

• Have a written treatment agreement (safe storage, MD is only source, will not give or sell marijuana to others)

• Do not charge fees for any aspect of treatment: assessment, chart review, education and information, or confirming validity of script
Medical marijuana: A brief summary of the evidence
Preliminary guidance from CFPC Guidance Document

- Dried cannabis differs from prescribed products in that Health Canada has not reviewed data on its safety or effectiveness and has not approved it for therapeutic use.
- College of Family Physicians wrote Preliminary guidance document on prescribing dried cannabis for pain and anxiety.
- Based on literature review and consensus.
Controlled trials: Extremely weak evidence

- 5 RCTs on smoked cannabis
- Total subjects = 220
- Duration average 5 days
- Subjects had severe neuropathic pain from MS or HIV or other causes
- Smoked cannabis compared to placebo, not to other treatments or to oral cannabis
- Outcome: subjective pain relief

- Deshpande 2015
Marijuana and anxiety

• Marijuana advocates claim it’s effective for PTSD and other forms of anxiety
  – Tilray’s doing an RCT on it
• Observational studies: Cannabis use associated with anxiety disorders
  – Causal relationship not understood
• Preclinical studies: THC may be anxiolytic in low doses, anxiogenic at higher doses
• Cannabis use can trigger panic attacks de novo
• Cannabidiol has anxiolytic effects
Marijuana and PTSD

• Longitudinal observational study 1992 – 2011: 2,276 US veterans admitted for treatment of PTSD

• Marijuana use associated with worse violence, alcohol and drug use, and PTSD symptom severity

• Those who stopped marijuana use after treatment and those who never used had the best outcomes

• Those who started marijuana use after treatment had worsening of symptoms

• Conclusion: “Marijuana may actually worsen PTSD symptoms or nullify the benefits of specialized, intensive treatment.”

Marijuana and anxiety: Assessment

- In assessing patient’s self report of anxiety relief:
  - Does the cannabis use improve the patient functioning?
  - Does the patient have signs of cannabis use disorder?
  - Is the symptom relief accompanied by cannabis intoxication with cognitive impairment?
Smoking is a dangerous delivery system

• No other medication uses smoke as a delivery system
• Cannabis combustion produces hundreds of chemicals that are potentially toxic and carcinogenic
• Smoking produces a rapid rise and decline in serum THC levels
  – Even one or two inhalations can cause cognitive impairment
  – This is unacceptable for a long-term medication
Medical marijuana has significant side effects

• Meta-analysis from 2009 (Sanchez et al), looked at 18 double-blind RCTS using pharmaceutical cannabinoids compared to placebo for chronic pain
• Side effects limit its use as a long term treatment:
  • Alterations to perception OR 4.51
  • Affect of motor function OR 3.93
  • Altered cognitive function OR 4.46
Acute and chronic effects of recreational marijuana

- Increased risk of MVAs
- Case-control, cohort studies suggest cannabis is risk factor for schizophrenia
- Cannabis use in adolescents associated with poor psychosocial functioning and use of other drugs
- Cannabis use disorders are a common reason for attending addiction treatment
Acute and chronic effects (2)

- Cannabis use can trigger panic attacks de novo
- Experimental studies: Low dose THC may be anxiolytic, high dose anxiogenic
- Cannabis use strongly associated with anxiety disorders
- Causal relationship is complex
Acute and chronic effects (3)

- Regular cannabis use is associated with a withdrawal syndrome
- Cannabis use in pregnancy linked with subtle neurodevelopmental defects
Medical marijuana users are similar to recreational users

- Have similar demographic profile – young, male
- Most medical cannabis users do not use it for severe neuropathic pain. They use it for anxiety, insomnia, or common pain conditions – fibromyalgia, back pain, headache
- Many started using marijuana prior to their pain condition
- They use marijuana in same dose as recreational users
- Have the same high rate of cannabis use disorder, problematic use of alcohol and other drugs as recreational users
- Have the same rate of psychiatric comorbidities
- Many patients requesting marijuana have contraindications or serious precautions to its use
Self-report of benefit is not enough to prescribe

• All drugs of abuse temporarily relieve anxiety, pain
  – Alcohol, opioids, cocaine, benzodiazepines
• How well is the patient functioning?
  – An effective analgesic/analgesic improves patients’ psychosocial functioning
• How does the patient function immediately after smoking?
  – Intoxication vs pain relief
  – Analgesia improves immediate function, intoxication reduces it
Rule out cannabis use disorder in patients requesting cannabis

• Signs of possible cannabis use disorder:
  – Current/past history of substance use
  – Concurrent anxiety, depression
  – Experiences euphoria, sedation, anxiety relief with smoking
  – Experiences severe anxiety, fatigue when doesn’t smoke (withdrawal)
  – Spends large amounts of time using cannabis
  – Poor social, work, or school function
  – Insists that ‘nothing else works’ for pain or anxiety
  – No clear medical indication
Management of suspected cannabis use disorder

• Don’t prescribe
• Refer for psychosocial treatment
• Address “harmless herb” belief
• Emphasize that mood and function will usually improve with reduced use
• Some patients may benefit from nabilone (Cesamet) replacement therapy
Cannabis and opioids

• ‘Marijuana versus opioids’ – a false choice
• In a patient with severe neuropathic pain, pharmaceutical cannabinoids could reduce opioid use – just as anticonvulsants and SNRIs could reduce opioid use
• However, compared to primary care patients with similar pain conditions, medical marijuana users are:
  – More likely to be prescribed opioids
  – More likely to misuse opioids
  – More likely to have problematic use of other substances
  – Like opioids, cannabis can cause death, through MVAs and suicide. It also ruins lives through addiction and mental illness
Prescribe pharmaceutical cannabinoids first

• Two cannabinoids available: Cesamet (nabilone) and Sativex (nabixamols)
• They are better suited for chronic neuropathic pain than smoked cannabis because:
  – Have much stronger evidence of effectiveness
  – Have longer duration of analgesic benefit
    • Smoked cannabis vs dronabinol: Dronabinol as effective with greater duration of analgesia
  – Are less expensive
  – Cause less intoxication and cognitive impairment
  – Have lower rates of addiction
  – Don’t contain toxic chemicals
Use caution when referring to medical cannabinoid clinics

- Don’t refer to a cannabinoid clinic unless:
  - The clinic doesn’t charge fees
  - The clinic provides comprehensive assessment and management
  - The clinic has explicit, prudent and evidence-based prescribing policies
Indications for dried cannabis

- Severe neuropathic pain
- Failed trial of medical treatment
- Failed trial of pharmaceutical cannabinoids
- *Not indicated for anxiety*
Contraindications, precautions

- Personal history of psychosis
- Substance use disorder (current or past)
- Age 25 or less
- Pregnant
- Cardiovascular or respiratory disease
- Depression, anxiety
Cannabis and driving

• Cannabis effects driving ability in different way than alcohol use
• Both together are more dangerous than either alone
• Don’t drive for at least 12 hours after use
Harm reduction Advice

• Use vaporizer instead
  – Much lower levels of carbon monoxide
• Don’t mix with tobacco
• Caution with alcohol, opioids, other drugs
• Don’t breath hold
• Caution with edibles
Recommended dose: 100-700 mg/day

9% THC

• Cannabidiol % should be equal or greater than THC %

• Maximum dose:
  – Dried cannabis 700 mg/day, 9% THC, 21 grams x 30 days
  – Should write THC % and cannabidiol % on authorization form
Dosing - rationale

• Very difficult to establish a dose range with smoking as delivery system
• Dose should be effective and cause minimal cognitive impairment
  – Cognitive impairment related to cannabis dose and THC concentration
• Doses >9% THC have not been studied in controlled trials
Dose (2)

• A smoked dose of one inhalation of 9% THC was shown to be effective in one trial, so start with 1 inhalation hs
• A dose of one inhalation 4-5 times per day can be achieved with a Rx of 400-500 mg/day dried cannabis
• Lower doses recommended for patients with precautions
  – Eg Patients on opioids, benzodiazepines
• Disregard the licenced producers promotion of 3 grams/day without regard to THC%
Monitoring

• When initiating inhaled cannabis see pt – weekly to biweekly until dose established
• Then monthly monitoring x 3-6 months before considering visits every 3 months
• Have signed treatment agreement
• Monitor for psychiatric symptoms, cannabis use disorder, functional changes
• Do urine drug screens for THC and other potential addictive substances
Discontinuation

• If no functional benefit is derived
• If impaired in the office
• If worsening mood, anxiety or other psychiatric symptoms
• If hazardous use (driving etc)
• If problematic use of other substances
Role of methadone physicians

- Consider providing consults for family physicians whose patients request cannabis
- Assess the patient to rule out cannabis use disorder and determine if they are a possible candidate
- This would be a much-appreciated service for family physicians
- Only become involved in medical marijuana clinics if you have expertise in pain management
Thanks

• Questions?