Sweet Leaf or Reefer Madness

The evidence for marijuana in pain management

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Disclosures

Relationships with commercial interests:

- **Grants/Research Support:** none
- **Speakers Bureau/Honoraria:** none
- **Consulting Fees:** none

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Objectives

- Develop a vocabulary for discussing the risks and benefits of marihuana with patients
- Assess a patient to decide whether authorizing marihuana is an appropriate choice
- Use the CFPC preliminary guidance document on Authorizing Dried Cannabis for Chronic Pain or Anxiety to create a treatment plan for a trial of marihuana

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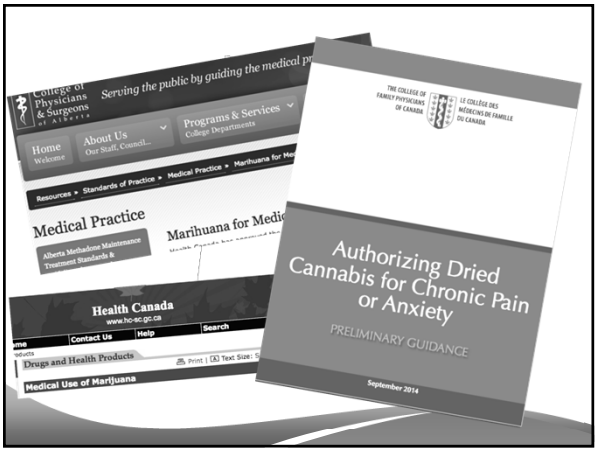

Clearly proven risks and benefits for pain patients

Bostwick JM, Blurred boundaries: the therapeutics and politics of medical marijuana, Mayo Clinic Proceedings 87.2 (Feb. 2012): p172.

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Neuropathic pain
Fibromyalgia
Back pain
HIV neuropathy
MS pain
Muscle spasm
Myofascial pain
Pelvic pain
Migraine
Tension headache

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CFPC guidance

- There is no evidence to support use of marijuana for fibromyalgia, back pain, OA
- Should be considered only for neuropathic pain that has failed to respond to standard treatments, including pharmaceutical cannabinoids
- Should not be used for sleep or anxiety

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Evidence to date

- Abrams, D. I., Jay, C. A., Shade, S. B., Vizoso, H. and others. (2007). Cannabis in painful HIV-associated sensory neuropathy: a randomized placebo-controlled trial. Neurology. 68: 515-521.
- Wilsey, B., Marcotte, T., Tsodikov, A., Millman, J. and others. (2008). A randomized, placebo-controlled, crossover trial of cannabis cigarettes in neuropathic pain. J.Pain. 9: 506-521.
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- Wilsey, B., Marcotte, T., Deutsch, R., Gouaux, B. et al. (2012). Low-Dose Vaporized Cannabis Significantly Improves Neuropathic Pain. J.Pain. 14: 136-148.

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Evidence to date

- Average N=30
- Duration of studies ≤5 days
- All previous smokers of marijuana
- Amounts ranging 25mg-900mg
- Smoking or vapourizing
- THC ≤9.4%
  - One study 20% not an efficacy study, n=8
- Reduction in pain ranging from 0.7 to 3 points on the NRS

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Benefit assessment

- MS or HIV neuropathy: perhaps
- Palliative care: *perhaps* less concern about long term risk
- Severe, disabling neuropathic pain, unresponsive to standard therapy: perhaps

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Benefit assessment

- Better sleep (possibly for some)
- Improved Pain (maybe)
- Less pain-related distress (maybe)
- Quality of life (not at all clear)

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Evidence of risks

- Volkow ND, Baler RD, Compton WM, Weiss SRB, Adverse Health Effects of Marijuana Use, N Engl J Med 2014;370:2219-27.
- Li MC, Brady JE, DiMaggio CJ, Lusardi AR, Tzong KY, Li G, Marijuana Use and Motor Vehicle Crashes, Epidemiologic Reviews, Vol. 34, 2012
- Crane NA, Schuster RM, Fusar-Poli P, Gonzalez R, Effects of Cannabis on Neurocognitive Functioning: Recent Advances, Neurodevelopmental Influences, and Sex Differences, Neuropsychol Rev (2013) 23:117–137

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Evidence of risks

- Cannabis Use Disorder
- Mood
- Cognitive impairment
  - Driving
  - Pregnancy
  - Children and adolescents
- COPD
- Cardiovascular/hepatic

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Third Parties

- Unknown implications
- Rules are evolving surrounding insurance, disability programs, employer responsibilities
- Smoking certainly can have an impact on coverage
- Legal cases in progress

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Bottom line for consent:

- Very few studies, very small, very short
- Very low doses (? Ceiling effect)
- Small magnitude of effect on pain (perhaps larger impact on pain-related distress)
- Some risks are evident; others may be unknown

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Assessing a patient who wants to consider cannabis treatment

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CFPC guidance

- Do not authorize:
  - Under age 25
  - Personal or strong family history of psychosis
  - Current or past cannabis use disorder
  - Cardiovascular or respiratory disease
  - Pregnant or breastfeeding
  - *? Hepatic disease*

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CFPC guidance

- Use caution:
  - Active mood or anxiety disorder
  - Smoke tobacco
  - Risk factors for cardiovascular disease
  - Heavy users of alcohol or taking high doses of opioids or benzodiazepines or other sedating medications

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CFPC guidance

- Physicians seeking a second opinion on the potential clinical use of cannabis for their patient should only refer to facilities that meet standards for quality of care typically applied to specialized pain clinics
- It is essential that the authorizing physician, if not the patient's most responsible health care provider, communicate regularly with the family physician providing ongoing comprehensive care for the patient

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A logical approach

- What is the patient's current level of function?
- What is their goal level of function?
- What is their past experience of cannabis?
- Are there risks inherent in the social situation?

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A logical approach

- Ensure that evidence-based approaches have been tried – including non-pharmacologic approaches
- Screen for history of substance abuse
- Screen for contraindications: heart and liver disease, pregnancy, psychotic disorders, age <25

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Initiating a trial of cannabis

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Lay the groundwork

- Document consent discussion and patient education
- Document risk assessment, UDT and cannabis treatment agreement
- Document concrete, measurable functional goals
- Agree that treatment will be stopped if function does not improve

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CFPC guidance

- "Start low, and go slow"
- Although it is not required by the MMPR, physicians should specify the percentage of THC on the medical document for all authorizations for dried cannabis, just as they would specify dosing when prescribing any other analgesic

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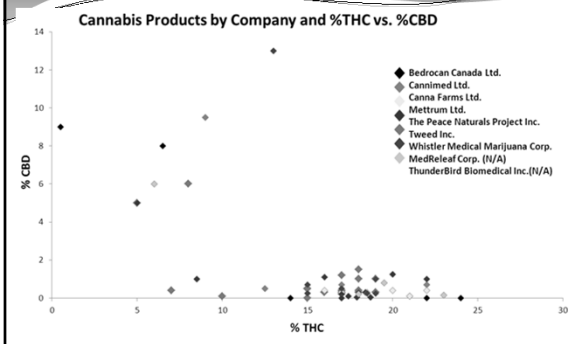

Mark Ware, 2014 – used with permission

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What do we know about dose?

- Hazekamp, A., and E.R. Heerdink (2013). The prevalence and incidence of medicinal cannabis on prescription in The Netherlands. Eur. J. Clin. Pharmacol. Published online April 16, 2013. (**average dose [various potencies] 0.68g/d**)
- Israel's medical marihuana program: the average daily amount used by patients was approximately **1.5 g/d** in 2011-2012 (Health Canada personal communication) website accessed March 27 2014.
- Health Canada suggests that most Canadians are using about **1g/d** (Ware, personal communication Feb 2015)
- RCTs suggest **100-700mg/d** of up to 9% THC

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Max 150 grams or
30 times daily "rx"
at a time,
whichever is less.

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Is 3g the upper end of the dose range?

700mg?

5g?

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- Prices ranging $5 – $12 / g
- THC ranging 1 – 24 %
- CBD often not stated
- sativa; indica; often not stated
- some websites offer tasting notes

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CFPC guidance

- Start with lowest possible THC concentration
- Start with one inhalation once daily, at a time when the patient doesn't need to be alert and ideally will be supervised
- Increase slowly to no more than 3g daily of 9.4% THC

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CFPC guidance

- Don't drive:
  - Four hours after inhalation
  - Six hours after oral ingestion
  - Eight hours after inhalation or oral ingestion if the patient experiences euphoria
- Note that Health Canada warns of impairment up to 24h later

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A logical approach

- Total dose less than 3g/d
- No way to Rx concentration of THC, but < 9.4% seems logical to suggest
- Likely better to vaporize than smoke or consume orally
- Consider at this point unsafe to drive or combine with ETOH

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