Medical Cannabinoids: Guideline Summary

Figure 1. Medical cannabinoid prescribing algorithm.

If Considering Medical Cannabinoids

YES

For: Neuropathic Pain, Palliative Pain, Spasticity in Multiple Sclerosis (MS) or Spinal Cord Injury (SCI), Chemotherapy-induced Nausea/Vomiting (CINV)

NO

Recommend Against Use

NO

YES

If tried: ≥3 medications for neuropathic pain

or ≥2 medications for palliative pain;

if refractory to standard therapies for CINV or spasticity in MS or S

or if refractory to standard therapies for CINV or spasticity in MS or SCI

YES

May consider a medical cannabinoid as adjunctive therapy:

Neuropathic or Palliative Pain: Try nabilone or nabiximols

Chemotherapy-induced Nausea/Vomiting: Try nabilone Spasticity in MS or SCI: Try nabilone or nabiximols We recommend against prescribing medical marijuana (particularly smoked) as a first-line cannabinoid due to a high risk of bias in available studies and unknown long-term consequences.

In all cases, potential harms and benefits should be discussed with the patient.

Percentage of people experiencing harms

Type of harm	Cannabinoids	Placebo
Sedation	50%	30%
"Feeling high"	35%	3%
Dizziness	32%	11%
Speech disorders	32%	7%
Ataxia/Muscle twitching	30%	11%
Hypotension	25%	11%
Numbness	21%	4%
Psychiatric	17%	5%
Euphoria	15%	2%
Dysphoria	13%	0.3%
Impaired memory	11%	2%
Withdraw due to harms	11%	~3%
Dissociation/Acute psychosis	5%	0%

Percentage of people experiencing benefits

Benefits	Cannabinoids	Placebo		
Chronic Pain (≥30% reduction after 4 weeks)				
Neuropathic pain	38%	30%		
Palliative pain	30%	23%		
Chemotherapy-induced nausea/vomiting (in 1 day)				
Control of nausea & vomiting	47%	13%		
Spasticity (≥30% improvement after 6 weeks)				
Spasticity	35%	25%		

Daily doses and costs

Drug	Daily Dose ²	Approximate cost/month
Nabilone*1	2 to 6 mg	\$94 to \$305
Nabiximols*	4 to 12 sprays	\$226 to \$903
Medical Marijuana	1 to 3 g	\$250 to \$750
Dried	typical use	Based on \$8.37/g

^{*}Manufacturer list price, does not reflect pharmacy dispensing fees.













¹Only generic nabilone covered by most provincial drug plans.

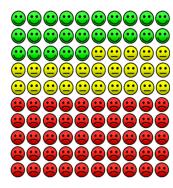
 $^{^2}$ Studied doses: Nabilone 0.5mg to 8mg/day, nabiximols 4 to 48 sprays/day, smoked marijuana had THC concentrations ranging 1 to 8% up to three times a day as tolerated. Daily doses from drug monographs and Health Canada.

Neuropathic Pain: Pharmacotherapy Treatment

Outcome: Meaningful (~30%) Pain Improvement

Ordered by decreasing estimated efficacy

Amitriptyline

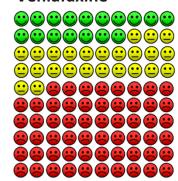


25 Improve with treatment

25 Improve with placebo or no treatment

50No improvement

Venlafaxine

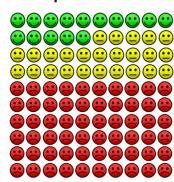


17 Improve with treatment

25 Improve with placebo or no treatment

58No improvement

Gabapentin



15 Improve with treatment

25 Improve with placebo or no treatment

60No improvement

High Dose Opioids



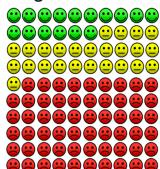
18 Improve with treatment

25 Improve with placebo or no treatment

57No improvement

*60-110mg oral morphine per day

Pregabalin

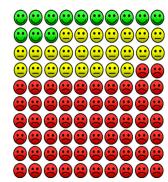


16 Improve with treatment

25 Improve with placebo or no treatment

59No improvement

Duloxetine



13 Improve with treatment

25 Improve with placebo or no treatment

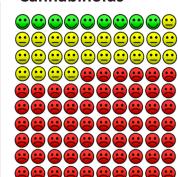
62

No improvement

Limitations

- 1. Based on indirect comparisons.
- 2. Timeframe ~4 to 12 weeks.
- Details on methods available in online supplement.

Cannabinoids



9 Improve with treatment

25 Improve with placebo or no treatment

66

No improvement



Improve with treatment



Improve with placebo or no treatment



No improvement