
Medical Cannabis: The New Miracle or a Placebo Pandemic?

By Mary-Ann Fitzcharles, MD, FRCPC

He is 57 years old, and one day may commit suicide because of intolerable neuropathic pain in the right knee, following multiple orthopedic procedures and finally a total knee replacement. He was detoxed from opioids at a morphine equivalent of over 500 mg/day, but the pain was so excruciating that a team decision was taken to reintroduce opioids in limited dose to a morphine equivalent of 80 mg/day. He smokes 1.5 g of cannabis daily, obtained from a buddy who grows it illegally. As a Christmas gift he received a “green bottle” labelled “CBD 500 mg in 30ml”, costing his friend \$100. After one day administration of three drops tid, there has been a miraculous improvement in his pain, but he has not reduced his current opioid dose. He still paces the corridor incessantly when waiting for his appointment. He required a refill of his opioid prescription that has been stable for four years, and the urine drug screen was negative for substances other than opioids and cannabinoids.

Prompted to do some sums, if the label on the “green bottle” is correct, then each ml of liquid contains 16.6 mg of cannabidiol (CBD), and each drop which is 0.02 ml to 0.05 ml contains CBD 0.33 mg to 0.83 mg. Therefore, nine drops of liquid from the “green bottle” amounts to about CBD 3-8 mg/day. As his treating physician, I have some questions. How can this miracle be explained? Does the label on the “green bottle” accurately identify the contents? Is the product in the “green bottle” safe for my patient? Has my patient been fleeced of his meagre income by charlatans? Let us explore some of these questions.

Dosing of cannabis

It is beyond understanding how a seemingly homeopathic dose of CBD oil could give such astounding effects, especially in the setting of moderately high-dose opioids as well as daily smoked cannabis. There is limited information on dosing regimens for cannabis, but gleaning from the literature, doses of CBD in the order of 50-200 mg/day are suggested for some medical conditions; children with Dravet syndrome have received CBD up to 50 mg/kg/day; nabiximols, marketed as the pharmaceutical preparation Sativex, contains CBD 2.5 mg and Δ^9 -tetrahydrocannabinol (THC) 2.7 mg a puff, with studies reporting 6-8 puffs in a day. Google tells us to “begin with CBD 10 mg, although micro-dosing of 2.5-5 mg is sometimes used.” Google fur-

ther states that some patients may use up to 1,000 mg a day, but in that case it is best to get advice from a “cannabis-savvy” doctor. Google does not define the qualifications or competencies of a “cannabis-savvy” doctor. There must be something truly magic in the “green bottle” that defies my simple understanding.

Is the “green bottle” label accurate?

Testing of medical cannabis products (oils, flowers and edibles) from the U.S. and the Netherlands have shown important inaccuracies in the labelling of over 50% of products, with under-, over- and mis-labelling of CBD and THC.¹⁻⁴ Other than a Marketplace study in Canada in 2016 with similar reports of inaccuracy, there has been no study published regarding accuracy of the content of medical cannabis in Canada. There are also currently no universal industry testing standards for identifying molecular content of medical cannabis. Regulations regarding quality control for cannabis in Canada are focused toward ensuring good practices in handling of product, record-keeping and ensuring absence of contaminants, but with little attention paid to ensuring accuracy of the molecular content of cannabis products. Therefore we must question the labeling of molecular content in the “green bottle” and others. This leads to the question of safety of the substance in the “green bottle”. The honest response is that we truly do not know what is being sold to our patients, from both the viewpoint of molecular content as well as safety. We can, however, anticipate that patients will increasingly turn to less costly products, obtained from suspect sources that are likely unregulated.

Is there such a thing as a mass placebo effect?

A further thought to ponder is whether we might be in the throes of a population mass placebo effect that has been primed by the media. A placebo effect may be further promoted by patients’ perceptions of personal control in choosing a treatment, a practice increasingly prevalent in our patients. The media has powerfully propagated the message of medical cannabis with copious reports attesting mostly to the successes and positive effects. We are bombarded with images of pristine cultivation facilities, staff clad in sterile outfits, and the smiling faces of persons claiming treatment success. The occasional report of ad-

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missions to emergency rooms for those experiencing adverse effects, especially children, are often tucked away and given less prominence.⁵⁻⁸ Patients search for a magic potion, and perhaps the medical community has been amiss in failing to recognize the potential benefits of cannabis. Perhaps the effect is not so much on the underlying medical condition, but rather a surreptitious psychoactive effect that gives a sense of relaxation and calm; perhaps not such a poor payoff for many.

Who gives advice about medical cannabis?

The internet and media are awash with advice, favourable reports and details about medical cannabis. Dispensary staff, with less than 20% reporting any medical training, are freely advising patients in the U.S.⁹ In Canada, agents for the producers provide similar advice, but without documentation of the training of these persons. Advice regarding the ideal molecular content, dosing schedules and adjustments for a particular condition to a specific patient represents the ideal of patient-tailored treatment. This notion has echoes of the old-fashioned apothecary, mixing a little of this and that to obtain the perfect mix. This sense of highly personalized medicine is promoted by the salespersons of producers as well as “cannabis-savvy” doctors. It is puzzling to understand how physicians in this day project themselves as experts in the administration of a single substance. Is the ideal of medical care not to address the whole person? Could it be that today’s “cannabis clinics” are not dissimilar from the medical “opioid mills” in North America that have been a cause of extreme suffering?

The reality

There is no turning back as cannabis is a legal medical and recreational substance in Canada, with easy access for those who hold hope for medical relief. Who are the winners in this game? The industry is clearly thriving; Canadian politicians are lauded as forward thinking; Canada is proud to be a leader in this field; cannabis news sells well, but what about our patients? Perhaps some patients will truly find a magic treatment, but clearly the financial inter-

ests of stakeholders will be substantial. As physicians who practice evidence-based medicine, is it not aberrant that we swivel 180-degrees, and simply embrace anecdotes and popular beliefs, throwing aside rational judgement?

Cannabis, now embedded into clinical care, may be a truly neglected panacea for many ills; or perhaps physicians are on the brink of an epidemic of pseudoscience that is promoted by a handful of “cannabis-savvy” doctors who base their competence on “clinical experience,” poor science and vigorous promotion to a vulnerable patient population. How this epic will play out in time remains to be seen. Will cannabis emerge as a truly neglected but welcome addition to the physicians’ armamentarium, will the current enthusiasm just blow over, or are we opening a frightening Pandora’s Box? I, however, pity those with limited income who are enticed to spend precious dollars on a possible modern-day snake oil. Are we in the calm before the storm erupts?

The views expressed in this article are those of the author, supported by scientific references and vast clinical experience. They should not be taken to represent an official position of the CRA, CRAJ or STA Communications.

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