

# Thoughts as we consider the legalisation of cannabis in South Africa

In the USA, President Trump is currently targeting the devastation caused by opioid addiction. Several statistics are being used to support this initiative, one of which is the apparently above-board sale of 9 million opioid pills over 2 years to a single pharmacy in a West Virginia town with a population of less than 400.<sup>[1]</sup> Consequently, doctors and pharmaceutical manufacturers are both regarded as being complicit in promoting opioid abuse and addiction. Along similar lines in South Africa (SA), one has to worry when a leading newspaper quotes the managing director of an SA phytopharmaceutical company with the statement that “Medicinal cannabis can be thought of as the gold rush of our time”.<sup>[2]</sup> In monetary terms, the current global market for cannabis/marijuana products is estimated to be USD3bn, with the potential to rise to USD56bn. The abovementioned company anticipates a significant share of that market. The foundations have already been laid through the acquisition of a licence to produce medical/medicinal marijuana (MM) in Lesotho, and then to deliver to countries in which MM and recreational marijuana have been legalised. Circumstances appear to be right for plans such as this, which not only leverage off the political correctness of commercialising phytopharmacy and legitimately exploiting the sub-continent’s natural flora, but also reflect what is happening in SA in terms of legislative processes around both MM and recreational marijuana use. In March 2017, the Medicines Control Council (MCC), which is soon to be replaced by the South African Health Products Regulatory Authority Board, issued guidelines for comment.<sup>[3]</sup> The 32-page document covers processes to regulate the growing, extraction and testing of cannabis, as well as the manufacture of medicines containing cannabis. The MCC and the Department of Health would grant permission to qualifying applicants, who would also have to meet stringent requirements in terms of product security and production. These guidelines were in anticipation of the government making progress in legalising MM. In this context, on 28 July 2017 the Government Gazette indicated that cannabidiol oil had been rescheduled as a schedule 6 drug for therapeutic purposes.<sup>[4]</sup> This introduces an element of control as the product was previously available through various outlets but often of questionable quality and purity. Apparently, a few days later the Schedule 6 status was ‘downgraded’ to schedule 4 by the MCC. Other cannabinoids may follow. Marijuana is chemically complex: it is comprised of >480 compounds, including 70 distinct cannabinoids.<sup>[5]</sup> The two main types of cannabinoids are tetrahydrocannabinol (THC), which is primarily responsible for the drug’s psychoactive properties, and cannabidiol (CBD). Purified CBD, or hemp CBD oil, is commercially available, with emerging evidence of its medicinal properties. It usually contains minimal THC. Cannabinoid receptors are widely distributed in the body: CB-1 receptors are found primarily in the central and peripheral nervous system and CB-2 receptors are primarily located in the immune system (e.g. B lymphocytes and natural killer cells). CBD is purported to have components with multiple actions ranging from reduction of inflammation, inhibition of cancer cell growth and enhanced bone growth, to pain reduction, enhanced sleep, appetite stimulation and reduction in nausea and vomiting. Overall, it seems that efforts to legitimise and legalise cannabis are enjoying some success, certainly in the realm of MM. As such, it is appropriate that medical professionals consider if and when

to prescribe the drug for their patients. In the US, while cannabis is still illegal at the federal level, some 29 states and Washington DC have legalised MM, and 9 have legalised recreational marijuana for adults. MM does not specifically refer to particular derivatives of marijuana but rather to ‘the use of the drug for medical purposes.’ In fact, MM is simply defined as ‘cannabis and cannabinoids that are recommended by doctors for their patients’, so one may well be concerned that the opioid abuse experienced in West Virginia and other towns in the US may also reflect in future prescriptions of marijuana/cannabis for ‘medicinal purposes’. In the US, all the aforementioned states allow the use of MM for children with cancer or a terminal condition. Apart from CBD, which is commercially available, the US FDA has approved a number of synthetic THC products for the treatment of chemotherapy-induced nausea and vomiting. In terms of research attesting to the value of cannabinoids in paediatrics, the subject has recently been reviewed by clinicians from New York and Boston.<sup>[5]</sup> It would appear that the opposition of the American Academy of Pediatrics (AAP) to the legalisation and the use of MM in paediatrics is not without foundation, as the evidence for its effectiveness in treating cancer, nausea and vomiting, anorexia and pain in children is thin.<sup>[6]</sup> However, the AAP acknowledges that MM might have a place in terminally ill children when conventional treatment is inadequate, but simultaneously calls for more research. There may be a place for the management of refractory seizures in children,<sup>[7]</sup> although the rate of adverse events appears to be fairly high, ranging from somnolence and diarrhoea to status epilepticus. Regarding legalisation and the recreational use of cannabis, the AAP is concerned about the emerging perceptions that cannabis is harmless, while evidence exists that its use during the early years may have long-term psychiatric and behavioural effects.

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1. McElhinny B. Town of Kermit, population 400, sues five pharmaceutical giants. <http://wvmetronews.com/2017/01/31/town-of-kermit-population-400-sues-five-pharmaceutical-giants/> (accessed 30 October 2017).
2. Hall J. Medical marijuana a huge opportunity for Africa. <https://www.iol.co.za/news/opinion/medical-marijuana-a-huge-opportunity-for-africa-11550668> (accessed 11 October 2017).
3. Medicines Control Council (MCC). Cultivation of cannabis and manufacture of cannabis-related pharmaceutical products for medicinal and research purposes. Pretoria: MCC, 2017. <https://daggacouple.co.za/wp-content/uploads/2017/03/MCC-Cannabis-Cultivation-Guidelines-Mar17-.pdf> (accessed 27 October 2017).
4. National Department of Health, South Africa. Medicines and Related Substances Act of 1965 (Act No. 101 Of 1965). Government Gazette No. 41009:708. 2017.
5. Ananth P, Reed-Watson A, Wolfe J. Medical marijuana in pediatric oncology: A review of the evidence and implications for practice. *Pediatr Blood Cancer* 2017:e26826. <https://doi.org/10.1002/pbc.26826>
6. Committee on Substance Abuse, Committee on Adolescence. The impact of marijuana policies on youth: Clinical, research, and legal update. *Pediatrics* 2015;135(3):584-587. <https://doi.org/10.1542/peds.2014-4146>
7. Devinsky O, Cross JH, Laux L, et al. Trial of cannabidiol for drug-resistant seizures in the Dravet syndrome. *N Engl J Med* 2017;376:2011-2020. <https://doi.org/10.1056/NEJMoa1611618>