

Medical Marijuana - A Prescription for Trouble?

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Those in the healing profession have prescribed cannabis, known in the vernacular as Marijuana (MJ), for at least five millennia. MJ was prescribed in China as early as 2737 B.C. for ailments ranging from “absentmindedness” to “female weakness.” In the United States, physicians routinely prescribed MJ until the late 1930s when it seemed to fall out of favor. It was not until 1970 that the law would intervene and proscribe all use. In 1975 the Compassionate Use Program for MJ was established by the Food and Drug Administration (FDA) and reserved for patients suffering from cancer, glaucoma and multiple sclerosis. Four years later, the Controlled Substance Act was established and classified MJ as having a high abuse potential and no safe medical use. In 1986 a synthetic form of tetrahydrocannabinol (THC), the main psychoactive substance in MJ, was offered in an oral form. Marinol was placed into Schedule II by the Drug Enforcement Agency (DEA), making it accessible to patients in need and also for research purposes. However, proponents of medical MJ argue that Marinol is less effective than

the natural herb and have lobbied hard to have the botanical legalized.

Research on the use of MJ for medical purposes is lacking, partly because it is currently classified as a Schedule I drug, making it virtually impossible to conduct the randomized, double-blind, placebo-controlled prospective studies that normally precede the availability of a new drug to the public. Most studies that have been done are small in number, retrospective in nature and confounded by uncontrolled variables including concomitant use of tobacco and/or co-morbid diseases.

While the Institute of Medicine stated that MJ was effective in lowering intraocular pressure (IOP) in patients suffering from glaucoma, it is estimated that a patient would need to smoke about a dozen “joints” per day for efficacy. While IOP may be successfully lowered and the risk for blindness reduced, the patient is likely to suffer side effects, including significant cognitive impairment. No study has demonstrated that MJ can lower IOP as effectively as drugs already on the market.

There is some evidence that smoked MJ relieves neuropathic pain related to HIV, but less evidence that medical MJ is helpful in controlling chronic/severe pain. Smoked MJ is also used to combat the wasting syndrome of AIDS and relieve nausea related to chemotherapy. While several reports support its efficacy, patients with these conditions are already physically compromised and unnecessary exposure to potentially dangerous substances should be avoided. MJ contains most of the hazardous substances found in tobacco smoke. It also inhibits T cell functioning and runs the risk of further compromising an immune-suppressed patient.

Those supporting the legalization of MJ tend to portray this complex alkaloid mixture of more than 400 compounds as a reasonable “natural” alternative to conventional drugs. But its organic nature does not preclude the need for scientific investigation. Despite legislation across the states relaxing laws governing the possession or use of MJ, the scientific community remains concerned about its risks.

The medical literature is replete with evidence that MJ use can be complicated by abuse and dependence. Ten percent of regular MJ users become addicted to it compared with 15% with alcohol, 32% with nicotine and 26% for opiates. The number of adults with substance abuse disorders is trending upward and expected to double by the year 2020. There is concern that increasing access and availability to another addictive substance will only aggravate this trend. Of MJ confiscated in the US, the potency (percentage of THC) has increased dramatically since 1975, raising additional concerns about increased abuse potential.

The largest demographic of MJ users includes adolescent and young adult males. Colorado ranks fifth in the nation for adolescent MJ use. The younger children are when first exposed to MJ, the more likely they are to use cocaine and heroin and become dependent on drugs in adulthood. MJ poses other mental health hazards. The risk for developing psychosis is increased by 40% for those who have used cannabis. Good research shows that smoked MJ makes anxiety, depression and disorders of attention worse. University of Colorado researcher Hon Ho, MD and his associates conducted a large longitudinal study of cannabis use in adolescents. They discovered that smoked MJ is associated with the subsequent development of depression, not the reverse. Slowed cognitive processing, impaired judgment and short-term memory, impaired inhibitory control, loss of sustained concentration or vigilance, impaired visuospatial processing and perception are dose-related side effects of smoked MJ. Heavy MJ use (daily for a month) is associated with residual neuropsychological effects even after a day of supervised abstinence. It is unknown whether this is related to residual drug in the brain or frank neurotoxicity.

MJ smoke contains many of the same carcinogens and co-carcinogens found in tobacco smoke. Because inhalation is deeper and more prolonged with MJ compared to tobacco, more tar-containing benzopyrene exposure occurs. Both acute and chronic bronchitis are associated with smoked MJ. Long-term cannabis use increases the risk for lung cancer as well as head and neck cancers. There exists scientific evidence that long-term MJ smoking alters the reproductive system. MJ use also increases heart rate. According to Harvard University researchers, the risk of a heart attack is five times higher than usual in the hour after smoking MJ.

Aside from the individual health risks associated with MJ use, it is important to consider the societal costs incurred when abusable, cognitive impairing substances are made readily available to the public. Studies employing computer controlled driving simulators reveal that cannabis acutely impairs driving-related skills in a dose-related fashion. The National Transportation Safety Board studied 182 fatal truck accidents

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in 1990 and learned that just as many accidents were caused by drivers using MJ as were caused by drivers impaired with alcohol. MJ is also implicated in a high percentage of workplace accidents. Drug use also contributes to crime. A large percentage of those arrested for crimes test positive for MJ. Nationwide, 40% of adult males tested positive for MJ at the time of their arrest.

Amendment 20 was meant to provide legal access to MJ for those suffering from debilitating conditions refractory to conventional treatments. A small scale enterprise was envisioned. Instead, storefront MJ dispensaries have sprouted like weeds (pun intended). Rumor has it that there are more MJ dispensaries in metro Denver than liquor stores and Starbucks coffee shops combined!

In reviewing medical MJ cards issued in Colorado, only 3% belong to people with cancer and only 1% for those with HIV/AIDS. Ninety percent of medical MJ cards have been issued to individuals presenting with severe chronic pain, a highly subjective qualifying condition. Of concern, 70% of medical MJ cards have been obtained by men, the majority being between the ages of 25 and 34 years, the demographic most likely to have addictions. At the time of this writing, approximately 20,000 medical MJ cards have been issued and, according to the Colorado Department of Public Health, a backlog of 50,000 existed. Either our state is experiencing an epidemic of severe pain in youthful males or Amendment 20 is being exploited, making a mockery of responsible medicine. Attorney General John Suthers testified before the Joint Judiciary Committees that while 800 physicians have signed for patients to receive medical MJ, 75% of patients received their recommendation from one of only 15 physicians and of these physicians, at least five have had disciplinary actions taken against them. SB109 is expected to cut down on the abuses reported by the Department of Public Health of some physicians making medical MJ recommendations in the absence of adequate evaluation or continuity of care.

Any physician making recommendations for medical MJ must hold a valid, unrestricted license to practice medicine as well as a valid, unrestricted DEA license. The physician must establish that a patient has a debilitating medical condition and would benefit from medical MJ. The evaluating physician should review all pertinent treatment records thoroughly, consult with other treatment providers involved in the patient's care, obtain a thorough history and conduct a physical examination before rendering a diagnosis or treatment recommendation. A bona fide doctor-patient relationship is established in this scenario. Follow up care for monitoring the effectiveness of medical MJ and changing recommendations when indicated should occur. All of this constitutes the practice of medicine, which means that the physician must abide by the Medical Practice Act, including practicing within one's scope of expertise, maintaining adequate malpractice coverage and engaging in continuing education to maintain one's competency.

Physicians must consider carefully which patients are appropriate for a medical MJ trial. While remaining sensitive to the population Amendment 20 was intended to help, we must also abide by the Hippocratic Oath and protect our patients from harm. Medical MJ has not been studied the way other remedies offered to the public are. MJ purchased from dispensaries has not been formally investigated for safety and efficacy. No standardizations for therapeutic dosing have been established. The THC content in MJ can range from 1 to 10%. Consequently, MJ is dispensed in unknown, varying strengths. It is not monitored for purity. No testing for the presence of contaminants (e.g., pesticides, herbicides or molds) occurs. Importantly, unlike medications approved by the FDA, no post-marketing surveillance will be conducted to track unforeseen adverse side effects of MJ. It will not be subject to liability regulations and will be exempt from quality control standards. Despite being a Schedule I drug, MJ has bypassed the Colorado Prescription Drug Monitoring Program. For all these reasons, physicians recommending medical MJ to patients should provide careful informed consent identifying the risks, benefits and alternative treatments available. People requesting medical MJ should be screened for their vulnerability to addiction and other mental illnesses. Physicians making medical MJ recommendations should also consider the liability of such a recommendation for patients working in safety-sensitive employment (for example, the healthcare and transportation industries). Finally, it will be important for all physicians to carefully examine their motives for recommending medical MJ. It should be solely for the patient's benefit. Financial incentives and personal political views should not influence treatment recommendations.

Of course, conflicts of interest, such as investments in dispensaries or financial kickbacks for referrals, are ethically and legally proscribed.

What is unfolding in Colorado is less about compassionate care for people with serious diseases and more about decriminalizing MJ. Those protagonists for liberalized MJ rules have strategically placed physicians smack in the middle of a political, not medical, debate. In the end, this tactical maneuver may prove to be a successful strategy for the complete legalization of MJ and other drugs, taking physicians out of the loop entirely. If not, state and federal regulators will need to ramp up efforts to ensure that the public is truly protected from indiscriminate dispensing practices and those physicians who interpret the law too loosely creating broad access to a substance with high abuse potential. Stay tuned!

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