Editor's Notes

A Societal Pot Hole in Need of Repair

By Stephen Jackson, M.D., Editor

Marijuana (derived from late nineteenth-century Mexican Spanish) refers to the dried leaves and flowers of the hemp plant, especially *Cannabis sativa*, and contains trace to 20 percent delta-9-tetrahydrocannabinol (THC) as its predominant psychoactive chemical. Although its "medicinal" and widespread recreational use in California has been aided and abetted by California law, it nonetheless is considered to be an illegal substance by the federal government ("feds"). The public discourse and general support for the "legalization" of cannabis in California have, in large part, been uninformed and politicized. **Nonetheless, what has transpired is that Californians unwittingly have put the physician into the role of "gatekeeper" for access to this allegedly harmless "medicinal."**

In 2010, the California Medical Association (CMA) weighed in on this public health controversy by creating a technical advisory committee on the Legalization and Taxation of Marijuana, tasked to recommend policy on the legalization, appropriate regulation and taxation for cannabis. The major conclusion, outlined in a CMA white paper released in October 2011, was that effective regulation of *medicinal* (not recreational) cannabis would be possible only if the feds reclassify it from Schedule 1 to a "lesser" and more appropriate drug-grouping Schedule. This change at the federal level, then, legally would permit research that, in turn, would guide responsible regulation of cannabis, just as with tobacco and alcohol. Research would determine the benefits and risks of using cannabis, thereby providing patient safety and public health policy with scientific underpinnings. In later pages of this issue there appear two informative articles on "pot clubs" (dispensaries) and societal "pot holes" (both the legal and regulatory voids) in need of repair (pages 83–90).

What are the current state and federal laws regarding cannabis? Let's start in 1996, when Californians approved Proposition 215, which decriminalized the cultivation and use of cannabis by seriously ill people upon securing a physician's recommendation. In 2004, the Medical Marijuana Program Act (MMP) provided for an identification card program to achieve greater consistency in the application and enforcement of Prop 215. MMP also permitted a physician to be paid for services that enabled qualified patients to use marijuana for "serious medical conditions." The statutory list of medical

conditions that qualified as "serious" was and remains overly broad, and almost none are supported by credible scientific evidence. Moreover, patients were permitted to cultivate up to six mature plants or possess up to half a pound of processed cannabis for medical purposes. In 2010, another California law advanced decriminalization by making the possession of less than 1 ounce of marijuana a civil rather than criminal infraction. The next *attempt* to decriminalize recreational use was Prop 19 in 2010, which would have permitted adults over 21 years to possess as much as an ounce for private use and allowed local governments to license and tax the sale of cannabis. It retained prohibitions against driving under the influence of marijuana, but also prevented employers from drug testing for cannabis. While failing passage, Prop 19 did gather 46.5 percent of the vote!

Federal law is much less complicated, and attempts to decriminalize cannabis nationally have not been successful. Cannabis is regulated through the Controlled Substances Act, which does not recognize a difference between recreational and medicinal use. Solidifying federal authority, the Supreme Court ruled in 2005 that the existing federal prohibitions against possession, cultivation and distribution of marijuana were legal and appropriate. The penalties for violation are significant, including imprisonment (up to 10 years) and fines (up to $500,000). Physicians convicted under federal law can lose their Drug Enforcement Administration registration and be excluded from Medicare/ Medi-Cal programs.

The major barrier to scientific research-based discourse is the federal classification of cannabis as a Schedule 1 drug. This relegates cannabis to a class of drugs that have *no* accepted medical use, yet possess a *substantial potential* for abuse. Thus, physicians cannot legally prescribe it for any reason outside of research settings. Indeed, Schedule 1 drugs are unlikely to be researched for their potential therapeutic value—as well as their risks—and this has been the case with cannabis and its numerous chemical components such as the cannabinoids, flavonoids and terpenoids. After all, how could one support and justify research that would establish an evidence-based regulatory scheme for a substance that is highly restricted by the feds? Could a cogent scheme even be made for such? Well, one California attempt at creating research opportunities was made in 1999 with the passage of a law that commissioned the University of California Center for Medicinal Cannabis Research (CMCR) to fund research to expand understanding of the medicinal value of cannabis.

Flying in the face of the federal position, California and 15 other states (and the District of Columbia) have *decriminalized* the use of *both* recreational and medicinal cannabis. **Under California law, physicians are permitted to *recommend* the use of cannabis for medicinal purposes, therein placing**

those physicians in the uncomfortable—if not untenable—position of "gatekeeper" for those who want to gain access to a federally *illegal* drug.

Also to be considered is that there currently is only sparse credible evidence for the *medicinal* efficacy of cannabis. With respect to *benefits* of cannabis, the botanical marijuana plant itself, when ingested or smoked, *may be* effective in the treatment of neuropathic pain (CMCR studies), spasticity (in multiple sclerosis—CMCR study), nausea, anorexia, and glaucoma. There are, however, both short- and long-term *risks*. Cannabis intoxication can induce transient mood, anxiety and psychotic symptoms. Distorted perceptions as well as impaired coordination, problem-solving and cognitive function (learning and memory) may persist for days to weeks, and chronic usage may lead to similar disorders of a sustained nature. Addiction to cannabis does occur in 10 percent of users and is more likely in those who begin its use before the age of 18.

With respect to the operation of motor vehicles, however, it is unclear as to whether cannabis use increases the likelihood of accidents, in sharp contrast to the robust evidence of the danger of alcohol. Interestingly, in driving-simulation testing, neurocognitive impairment varies in a dose-related manner, and impaired function is more pronounced with highly automatic driving functions than with more complex tasks requiring conscious control.

All this notwithstanding, knowledgeable, reasonable and thoughtful people believe that the national prohibition of cannabis for *recreational* use has been ineffective (if not counterproductive) and unpopular and has labeled as "criminals" otherwise "ordinary/law-abiding" citizens. Moreover, even if the use of recreational cannabis were to become legally permissible, then there still would be a need for oversight and quality control, for matters such as concentration and purity, in order to protect the public.

The demand for cannabis is a significant driver for violent drug cartels in Mexico and other foreign countries, and serves as a nidus for criminal activity and violence in our own communities. In California, the annual harvest of cannabis is estimated to be worth $17 billion, which is larger than the top five legal agricultural exports combined! Furthermore, at least for the present time, unless physicians adhere to their *ethical* obligations to their patients (and society) with respect to "recommending" cannabis *only* for *"serious medical conditions,"* then limiting the number of dispensaries and the amount of cannabis that can be cultivated will not prevent the diversion of cannabis for recreational use.

In summary, the first step to repair the "pot holes" alluded to in this column is for the feds to move cannabis to another Schedule so as to enable its long overdue

scientific investigation. Then and only then can we as a society arrive at a credible and responsible public policy with respect to marijuana. Enlightenment regarding the actual pharmacology of cannabis coupled with development of a uniform, evidence-based regulatory approach across the disparate sectors of government will make addressing this societal challenge "pot-whole," that is, a reasoned decision based on scientific data.

Letter to the CSA

To The Editor:

I would like to commend you for your excellent editorial on sleep deprivation ("Sleepwalking, But Not Well," *CSA Bulletin*, Fall 2011), a pervasive but largely ignored issue in our specialty (and others as well). It is curious that while anesthesia has been obsessively compared to aviation, the reverse is, to my knowledge, rarely encountered. Purveyors of quality of care speak to checklists, information displays, simulators and such, but when it comes to the topics of sleep deprivation and fatigue, mandatory rest periods just don't quite make the cut. Why is that? My guess is that it is more challenging for those who address sleep deprivation-induced impairment to couple this issue with the socio-economic dilemmas of manpower and reimbursement. Highlighting this contrast, the Federal Aviation Administration recently proposed strengthening its fatigue rules (rest requirements) for professional pilots to nine hours of rest under certain circumstances, not including transportation time to and from the rest facility, while our specialty remains mute on this subject. Each of us should be reminded of this state of affairs when we fly and be grateful that aviation, unlike our profession, takes fatigue very seriously.

Clarence F. Ward, M.D.