MEDICAL

What Should Palliative

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In November 2009, while representing AAHPM in the American Medical Association (AMA) House of Delegates (HOD), I found myself unexpectedly engaged in the public debate surrounding medical marijuana. During the AMA HOD's consideration of the report by the AMA Council on Science and Public Health (CSAPH) that would reverse the AMA's opposition to medical cannabis,[1] a California delegate identified himself as a palliative care physician and testified that he had "prescribed *staggering amounts* of marijuana" for highly symptomatic patients suffering from terminal illnesses. Many other delegates stared in disbelief when he described what constituted staggering amounts.

His testimony unexpectedly placed the medical specialty of hospice and palliative medicine at the center of the AMA's medical marijuana debate. It also forced me into a challenging assignment as the official representative for palliative care in the AMA HOD: to explain the careful reasoning behind AAHPM's support for the CSAPH report in the absence of an explicit Academy position statement on medical marijuana.[2] On one hand, remaining silent would have incorrectly implied that the hospice and palliative care community had uniformly accepted prescribing "staggering amounts" of marijuana as part of usual practice. On the other hand, a recent article suggested that many hospice providers view medical marijuana as a viable treatment option as part of the provision of palliative care.[3]

As one expert observed, "little about the therapeutics or politics of medical marijuana seems straightforward."[4] My balancing act during the debate in the AMA HOD supports this observation. With this complexity in mind, this article seeks to provide hospice and palliative care specialists with straightforward information about policy trends driven by medical marijuana's increasing popularity, despite our limited understanding about its clinical benefits and long-term health risks.

Shifting Public Policy

A Brief History of Medical Marijuana

Although ancient cultures used marijuana to relieve a variety of symptoms millennia ago, William O'Shaughnessy, an Irish physician, described the first use of marijuana in medical literature in 1839.[1,5] In 1854, marijuana became listed in the US Dispensary, with purported benefits that included analgesia, sedation, and therapeutic effects against inflammation, nausea, and spasms.[1]

Its use remained legal in the United States until the late 1930s, when the federal government passed the Marihuana Tax Act of 1937, which created a criminal fine for marijuana possession.[1,6] The act, which was opposed by the AMA at the time, levied higher fines for individual possession ($100 per ounce) than corporate possession ($1 per ounce).[1,6] Marijuana's legal use was completely eliminated by 1942, when it was removed from the US Pharmacopeia Convention.[1,7]

Although marijuana had become illegal, its use as an illicit recreational drug grew during the antiwar and counterculture social movement of the 1960s.[1] In response to soaring recreational drug use, the US Congress passed the Controlled Substance Act (CSA), which placed *Cannabis* into Schedule I, a category for drugs with "no currently accepted medical use."[1,8] The CSA also defined Schedule I drugs, including marijuana, as lacking safety data and possessing high potential for abuse.[8]

State Decriminalization Versus Federal Law

Marijuana use remained explicitly illegal in all states until 1996, when voters in California passed the Compassionate Use Act (also known as Proposition 215) by a 56% to 44% margin.[1,9,10] Proposition 215's passage allowed patients to receive a physician's recommendation to possess or grow marijuana for personal use.[10] Since then, 14 states and the District of Columbia have removed criminal penalties for marijuana possession for patients with qualifying medical conditions, and two other states

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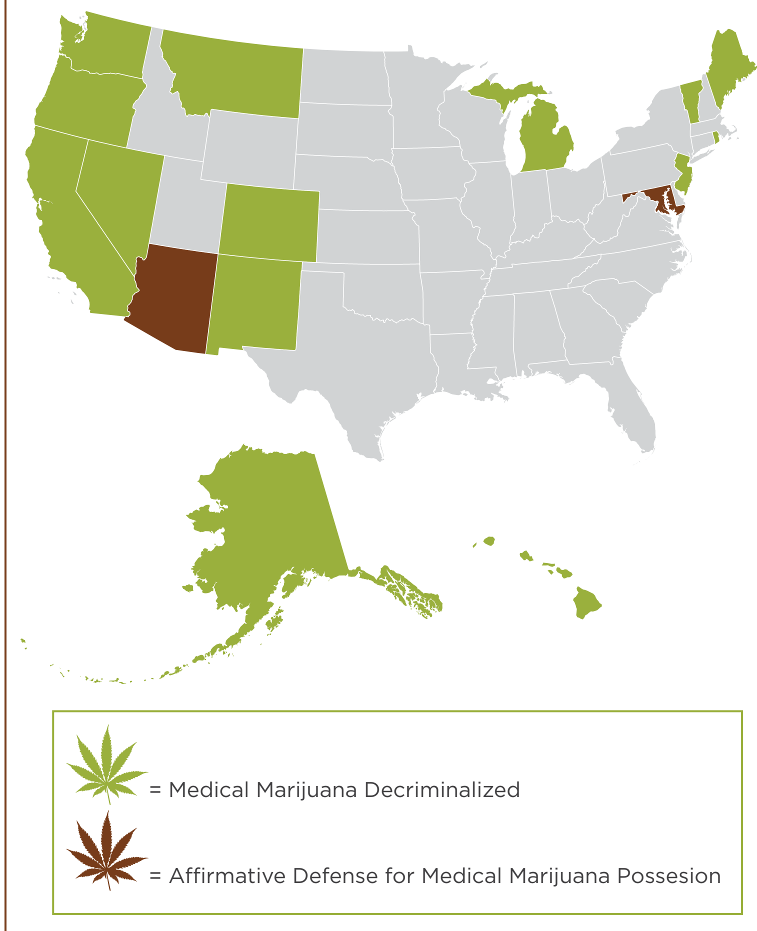
have created a medical defense for patients possessing marijuana (see **Figure 1**).[1,10-12]

Three court cases decided during George W. Bush's presidency brought clarity to the federal government's view of these state laws. In the 2001 case, *US v Oakland Cannabis Buyers' Cooperative*, the US Supreme Court held that the distribution of marijuana violated the CSA and was illegal under federal law.[13] A year later, although it upheld physicians' constitutional free speech right to discuss marijuana as a treatment option for their patients, the US Court of Appeals affirmed that the CSA disallowed physicians from helping patients to obtain marijuana.[14] Similarly, the US Supreme Court ruled in 2005 that the Drug Enforcement Agency could enforce the CSA against medical marijuana users without invalidating state laws.[15]

Despite decriminalization of medical marijuana possession in many states, the courts held that marijuana possession remained illegal under federal law, specifically the provisions of the CSA of 1970[8]; however, the practical issue was not one of legality but of whether the federal law would be enforced. In October 2009, under the presidency of Barack Obama, the US Department of Justice formally announced that it would not prosecute medical marijuana users who had complied with applicable state laws.[16]

Figure 1. Legalization of Medical Marijuana by State



A Limited Evidence Base

Although medical marijuana's illegality under federal law is clear (but almost universally unenforced), its clinical benefits and potential health risks remain controversial, largely due to insufficient medical research. There are very few randomized controlled trials (RCTs) that examine medical marijuana's positive clinical effects,[1] but the limited research data available suggest that early claims about marijuana's purported beneficial effects were surprisingly accurate (see **Table 1**).

These 12 RCTs, which involved 302 patients, suggest that medical marijuana may have some benefit in the management of chemotherapy-induced nausea, HIV-related anorexia and neuropathic pain, capsaicin-induced pain, spasticity from multiple sclerosis, and elevated intraocular pressure.[17-27] However, to qualify for a change in schedule under the CSA,

Table 1. Summary of Randomized Controlled Trials Examining Marijuana's Effect on Various Symptoms				
Symptom	**RCTs**	**Patients**	**Finding(s)**	**Lead Author (Year)**
Chemotherapy-induced nausea	3	43	Smoked cannabis has a modest antinausea effect greater than placebo but less effective than ondansetron.	Chang, 1979[17] Chang, 1981[18] Levitt, 1984[19]
HIV-related anorexia	3	97	Smoked cannabis and oral THC produced comparable but small increases in caloric intake and weight; viral load was unaffected.	Abrams, 2003[20] Haney, 2005[21] Haney, 2007[22]
HIV-related neuropathic pain	2	89	Half of the patients experienced a 30% reduction in pain ratings.	Wilsey, 2008[23] Ellis, 2009[24]
Capsaicin-induced pain	1	15	Half of the patients experienced a 30% reduction in pain ratings.	Wallace, 2007[25]
Spasticity from multiple sclerosis	2	40	Reduced scores for pain (50%) and spasticity (30%) were observed using high-potency cannabis cigarettes.	Greenberg, 1994[26]
Intraocular pressure	1	18	Smoked cannabis (one 2% THC cannabis cigarette) caused a significant reduction in intraocular pressure.	Merritt, 1990[27]
Totals	12	302		

THC, tetrahydrocannabinol.

adequate and well-controlled studies must prove the drug's efficacy,[8] and it is doubtful that the limited data meet that standard.

In addition, consideration for a CSA schedule change also requires an adequate number of studies that demonstrate the drug's safety.[8] Such changes must come from the Attorney General through the promulgation of a rule. Most safety information for marijuana comes from studies that examine its nonmedical, short-term, recreational use via smoking.[28] Although some studies have implicated medical marijuana as a risk factor for cancer, others have either not identified an increased risk or cite concomitant tobacco smoking as a confounding factor in their analysis.[29-35] Furthermore, although the view of marijuana as a "gateway drug" to more severe, illicit substance abuse has lacked conclusive supporting evidence collected over time, the gateway concept remains a controversial point for many medical marijuana critics.[36-38] The role of marijuana in the development or unmasking of mood disorders and psychoses also remains unclear.[39] The clearest message from studies that have examined medical marijuana's efficacy and safety is that more research is needed to define its efficacy and safety more clearly.

Position Statements on Medical Marijuana

In response to growing popular support for the use of marijuana medically, and in recognition of these knowledge limitations, several well-known and reputable medical organizations have developed position statements regarding its use, particularly during the past 4 years (see **Table 2**).[1,7,10,40]

These position statements unanimously support an increase in research designed to examine marijuana's medical uses, which would likely require a change in marijuana's CSA schedule to allow for a sufficient volume of research studies. Furthermore, with the exception of the Institute of Medicine's position,[10] the statements uniformly reject the use of smoked cannabis, mainly because of the inferred health risks from inhaling burned hydrocarbons.[1,7] Although AAHPM has not established a position statement regarding its views on the use of medical marijuana or related research, attendees at a session on the topic at the 2011 Annual Assembly expressed interest in exploring such a statement.[2]

Summary

The politics and therapeutics of medical marijuana are complex and lack uniformity. In some states, a patient may obtain marijuana without facing criminal prosecution after a physician confirms his or her medical need, yet this remains illegal in many other states. Despite differences in state laws governing its criminality, the federal government views marijuana possession as illegal; the US Department of Justice has simply chosen to not enforce federal law in states embracing decriminalization—at least while under the guidance of the current administration. Fortunately, regardless of the state in which they practice, all physicians possess a constitutionally protected right to discuss medical marijuana with their patients.

Table 2. Summary of Position Statements by Medical Organizations on Medical Marijuana (Cannabis)				
Organization	**Approval of Smoked *Cannabis*?**	**Support of More Research?**	**Comments**	**Lead Authors and Year**
Institute of Medicine	Yes, conditionally	Yes	Calls for more safety data on smoked cannabis Urges development of safe and reliable delivery systems	Joy, 1999[10]
American College of Physicians	No	Yes	Encourages use of nonsmoked THC with proven benefit Calls for review to reclassify CSA Class I status Recommends clinical exemption for prescribing physicians	ACP, 2008[7]
American Medical Association	No	Yes	Calls for special CSA schedule to encourage cannabis research	CSAPH[1]
American Society of Addiction Medicine	No	Yes, conditionally	Calls for applying "established research standards" to cannabis Discourages cannabis prescribing until research confirms safety and efficacy	Barthwell, 2010[40]

THC, tetrahydrocannabinol.

In those discussions, physicians can tell their patients that a few well-designed RCTs have shown that medical marijuana may offer relief for a variety of symptoms, many of which are common in the provision of palliative care. However, physicians should also acknowledge that the amount of evidence from RCTs is very limited and that even less medical research examining the health risks of long-term marijuana use for medical purposes exists.

Finally, recognizing that the knowledge base about medical marijuana is limited, several key medical organizations have crafted position statements that call for more research about its safety and efficacy. For physicians practicing hospice and palliative medicine, however, there is currently no position statement on medical marijuana that conveys a consensus about its use in a palliative care context. Until then, the information contained in this article will hopefully help palliative care specialists to understand what they should know about medical marijuana to better serve their patients.

Author's note. In October 2011, federal prosecutors warned several California dispensaries to shut down or face criminal charges after the Internal Revenue Service (IRS) determined that they illegally avoided paying federal taxes while operating their businesses.[41] This warning came about 2 months after the Department of Justice issued a statement "that marijuana dispensaries and licensed growers in states with medical marijuana laws could face prosecution for violating federal drug and money-laundering laws."[41] The IRS and Drug Enforcement Agency raided several of these marijuana dispensaries in early April 2012, leading some medical marijuana advocates to accuse the Obama administration of reversing its 2009 policy.[42] The full impact of these actions on the decriminalization of medical marijuana in California and other states remains unclear at this time.

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