California's Ongoing Public Health Experiment

Clinicians Confirm Safety, Efficacy of Cannabis

What are the Implications For Healthcare Reform?

In 2006, 10 years after California voters legalized the medical use of marijuana, Tod Mikuriya, MD, surveyed doctors associated with the Society of Cannabis Clinicians to get some basic epidemiological data to publish in *O'Shaughnessy's*. How many patients had been seen to date? What conditions were they treating with cannabis? What results were being reported?

As of 2006 SCC doctors had approved cannabis use by an estimated 160,000 patients. Since then California's vast public health experiment has gotten vaster. As of June 2009, one chain of clinics by itself, MediCann, had issued 150,000 approvals—not counting renewals!

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Practice updates by cannabis specialists consistently confirm the patterns reported by Mikuriya *et al* in "Medical Marijuana in California, 1996-2006" *(O'Shaughnessy's, Winter/Spring 2007)*. Most notable is the herb's safety profile: hundreds of thousands of patients have used cannabis and there have been no deaths, no reports of adverse events requiring hospitalization.

All MDs in the field have observed that cannabis use enables patients to cut back on or quit completely synthetic pharmaceuticals that exert adverse side effects. *(See Dr. Hergenrather's list at right.)* This simple fact has tremendous economic and political implications.

Legalizing marijuana for medical use would cut the cost of health care for millions of Americans. It would reduce the profits of pharmaceutical manufacturers by roughly the same amount, which is why big PhRMA has lobbied so fiercely and effectively to uphold Prohibition.

Recently there has been a spate of media speculation about the economic consequences of legalization for medical use. The stories typically refer to tax income that would accrue to the state of California —$1.3 billion/year, according to an estimate by tax official Betty Yee. We have yet to see a story discussing the impact of legalizing medical marijuana on the pharmaceutical industry. How much do Merck, Lilly, Pfizer *et al* stand to lose if the American people could medicate with cannabis as readily as the patients referenced in these practice updates?

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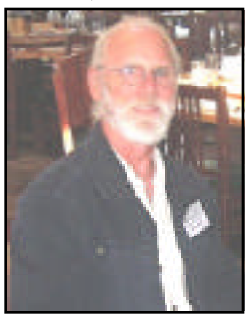
U.S. sales for prescription drugs reached $291.5 billion in 2008. The top therapeutic category, antipsychotics, brought in $14.6 billion for the manufacturers. Other drug categories that would lose sales to legalized cannabis include seizure-disorder medications ($11.8 billion), anti-depressants ($9.6 billion), analeptics for ADHD ($4.8 billion), GI anti-inflammatories ($4.4 billion), and Codeine and combinations ($4.9 billion).

Big PhRMA's over-the-counter blockbusters like Tylenol and Aleve would also lose significant market share if cannabis was legally available. Tylenol causes 39% of acute liver failure cases in the U.S. No wonder its distributor, Johnson & Johnson, has played a leading role in imposing marijuana prohibition on the American people.

We in the United States pay about twice as much for health care as do citizens of other developed nations. Legalizing marijuana for medical use would not solve the myriad problems of our costly system. But it would be a step in the direction of economy, safety, and rationality.

PRACTICE UPDATE:

JEFFREY HERGENRATHER, MD



Dr. Hergenrather, a cannabis specialist since 1999, sees patients in Sebastopol.

• How many patients' cannabis use have you approved (not counting renewals of your own or other doctors' patients)?

Through October 2008, I have established a physician-patient relationship with 1700 patients.

• What has been the ratio of new patients to renewals in 2008?

About one to nine. Total number of renewals seen in past 12 months: 990.

With what medical conditions have they presented? List and estimate percentage using for a given condition. (Percentages may exceed 100% because many patients use cannabis to treat more than one condition.)

ICD-9 Code Groupings —1700 patients

Chronic pain	59%*
Psychiatric conditions	24%
Gastrointestinal disorders	10%
Migraine	10%
Sleep disorders	8%
Infectious diseases, selected	8%
Harm reduction	4%
Cancer, malignant	7%
Endocrine disorders	6%
Spastic disorders	4%
Nausea / Vomiting / Anorexia	4%
Autoimmune disorders	4%
Neurodegenerative disorders	3%
Glaucoma	2%
Skin disorders	2%
Organ failure	1%
AIDS related illness	1%
Epilepsies	1%

* Multiple pain diagnoses (for hip, shoulder, etc.) are common. See breakdown by diagnosis on next page.

What results do patients report? How does cannabis appear to work in treating their symptoms?

Patients report that cannabis is their best option for chronic pain. Other medications usually have bothersome if not intolerable adverse effects; cannabis does not. A hiatus in use often precedes the epiphany that "cannabis really does work." It is adequate for pain control for the vast majority of patients. About seven percent of my chronic pain patients remain opiate dependent. The trend is for patients to gradually reduce and omit the use of opiates in favor of cannabis.

For AIDS patients, cannabis reduces or eliminates anorexia, nausea, and vomiting so that the patient is able to take HIV medications and eat appropriately.

Cancer patients note a wide range of benefits from comfort care and end-of-life preparation to complete remission of cancer growth. Cannabis appears to have anti-cancer activity against certain tumors.

Muscle rigidity and spasticity are typical of patients with spinal cord injuries, neurodegenerative diseases, brain trauma, stroke patients, and various congenital conditions such as cerebral palsy and muscular dystrophy. For the majority of patients cannabis is used alone to control symptoms. For some, cannabis is used in combination with other antispasmotic medications to achieve better control. Cannabis has a fast onset of action (seconds) and a pleasant calming central effect that make it ideal for most patients.

Glaucoma patients have the least to report. They can't feel the intraocular pressure reduction. The response is variable from not needing any additional medication to having the need for up to three conventional medications in order to get optimal IOPs.

Arthritis comes in many forms, from traumatic joint injuries in 5% of patients to garden-variety degenerative arthritis in about the same percentage of patients.

• What medications has cannabis enabled your patients to stop taking or cut back on?

Analgesics of all kinds, NSAIDs, acetaminophen (Tylenol), aspirin, and opioids, psychotherapeutic agents including anti-anxiety medications, anti-depressants, anti-panic agents, obsessive-compulsive agents, anti-psychotic agents, and bipolar agents, Gastrointestinal agents including antispasmodics and anti-inflammatory medications, migraine preparations, anticonvulsants, appetite stimulants, immuno-modulators and immunosuppressives, muscle relaxants, multiple sclerosis management medications, ophthalmic preparations, sedative and hypnotic agents, and Tourette's syndrome agents.

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• Have you encountered any out-of-the-ordinary conditions being treated effectively with cannabis?

The most unusual cases involve malignant cancer patients who appear to be benefiting from use of cannabis.

Previously I reported on three such cases *(see O'Shaughnessy's, Winter/Spring 2008)*. One patient had died of non-cancerous complications of relapsing and refractory neuroblastoma. The malignant melanoma patient is doing well with no signs of recurrence.The glioblastoma multiforme (GBM) patient continues to do well without evidence of recurrence more than six years after diagnosis. I will refer to him as"Patient A," as I am now following two other GBM cases.

Generalizations about efficacy are inappropriate, given how few patients I'm dealing with. Patient A is smoking and ingesting a total of approximately 1.5 ounces of cannabis per week. He smokes six to eight joints per day in addition to ingesting homemade capsules before and after meals. He reports that these stimulate his appetite and help settle the meal.

Patient B did well for several months after surgery, chemo, and radiation. He then traveled for three months without cannabis, despite my expressed misgivings. The tumor returned and he recently had a second surgery. He now intends to follow a more consistent cannabis schedule.

Patient C was diagnosed after the tumor was so large that she was advised hospice instead of treatment. It has been more than five months since her diagnosis and she has tried to maintain a schedule of two-to-four homemade cannabis capsules daily.

A second condition that patients are using cannabis to treat with noteworthy success is inflammatory bowel disease, which includes both Crohn's disease and ulcerative colitis. *(See initial report in O'Shaughnessy's, August 2005.)* Forty patients are participating in a study I am conducting. All patients to date report statistically significant improvement in their pain, appetite, nausea, vomiting, fatigue, depression, and activity level. They report weight gain, fewer stools per day, less frequent and less severe flare-ups while using cannabis. Once the questionnaires are all returned, I will submit the study for publication.

• Describe/estimate the male/female ratio, age (range and average), race, and employment status of your patients.

Mean age: 48 years.

Male 2/3, Female 1/3

Race: 85% Indo-European, 5% Hispanic, 3% Black, 2% Asian

• How many of your patients are consciously using cannabis as an alternative to alcohol or for other harm reduction purposes?

Approximately 4%.

• Have you observed or had reports of adverse effects from cannabis? If so, please describe.

A small percentage experience paranoia, or anxiety. A small but significant percentage have a mild complaint of airway irritation and cough that is resolved with non-smoked delivery methods

• What percentage of your patients are cannabis naive?

One percent.