REPRINTED FROM:

Journal of Opioid Management™

A medical journal for proper and adequate use

Volume 5, Number 5, September/October 2009

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Journal of Opioid Management ISSN 1551-7489 is published bimonthly by Weston Medical Publishing, LLC, 470 Boston Post Road, Weston, MA 02493, 781-899-2702. Subscription price per volume: US Individual, $322, US Institution, $430, US Library, $494; Canadian Individual, $349; Canadian Institution, $475, Canadian Library, $517; Foreign Individual, $404; Foreign Institution, $525, Foreign Library, $548. Single issues: United States, $85; Canada, $100; Foreign, $125 (Note: All rates in US Dollars.). To subscribe, visit our Web site at *www.opioidmanagement.com* and click on the subscription link. Submit your complete name, address and zip code, attention: ***Journal of Opioid Management***, Circulation Department, 470 Boston Post Road, Weston, MA 02493. Please enclose check, purchase order or credit card with authorization signature.

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ORIGINAL ARTICLE

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ABSTRACT

Objectives: *This study was conducted to better understand the characteristics of chronic pain patients seeking treatment with medicinal cannabis (MC).*

Design: *Retrospective chart reviews of 139 patients (87 males, median age 47 years; 52 females, median age 48 years); all were legally qualified for MC use in Washington State.*

Setting: *Regional pain clinic staffed by university faculty.*

Participants: *Inclusion criteria: age 18 years and older; having legally accessed MC treatment, with valid documentation in their medical records. All data were de-identified.*

Main Outcome Measures: *Records were scored for multiple indicators, including time since initial MC authorization, qualifying condition(s), McGill Pain score, functional status, use of other analgesic modalities, including opioids, and patterns of use over time.*

Results: *Of 139 patients, 15 (11 percent) had prior authorizations for MC before seeking care in this clinic. The sample contained 236.4 patient-years of authorized MC use. Time of authorized use ranged from 11 days to 8.31 years (median of 1.12 years). Most patients were male (63 percent) yet female patients averaged 0.18 years longer authorized use. There were no other gender-specific trends or factors. Most patients (n = 123, 88 percent) had more than one pain syndrome present. Myofascial pain syndrome was the most common diagnosis (n = 114, 82 percent), followed by neuropathic pain (n = 89, 64 percent), discogenic back pain (n = 72, 51.7 percent), and osteoarthritis (n = 37, 26.6 percent). Other diagnoses included diabetic neuropathy, central pain syndrome, phantom pain, spinal cord injury, fibromyalgia, rheumatoid arthritis, HIV neuropathy, visceral pain, and malignant pain. In 51 (37 percent) patients, there were documented instances of major hurdles related to accessing MC, including prior physicians unwilling to authorize use, legal problems related to MC use, and difficulties in finding an affordable and consistent supply of MC.*

Conclusions: *Data indicate that males and females access MC at approximately the same rate, with similar median authorization times. Although the majority of patient records documented significant symptom alleviation with MC, major treatment access and delivery barriers remain.*

Key words: cannabis, marijuana, cannabinoids, chronic pain, opioids, opiates

INTRODUCTION

Recently, there has been widening interest in the viability of the medicinal use of cannabis or marijuana, with a call for further research from The National Institutes of Health (NIH),[1] a statement of support for consideration of the reclassification of cannabis' status as a Schedule I substance by the American College of Physicians (ACP),[2] and a recommendation for clinical use of medical cannabis (MC) for symptom relief in seriously ill patients in limited and locally implemented peer-reviewed

treatment trials in a decade-old report by the Institute of Medicine (IOM).[3] The discovery of an endogenous cannabinoid system with specific receptors and ligands two decades ago has increased our understanding of the actions of exogenous cannabinoids found in cannabis on the human body.[4-6] The endocannabinoid system, which includes cannabinoid receptors, endogenous ligands, and other regulatory molecules, appears to be intricately involved in normal human physiology, specifically in the control of movement, pain, memory and appetite, mood, and inflammation, among other functions.[4,5] An understanding of the biological basis of cannabinoid signaling gives the pain specialist a way to explain why the analgesic effects of cannabis and cannabinoids have been substantiated in a number of studies, including randomized, controlled trials.[7-21]

Indeed, cannabinoids have been found to have analgesic effects "in virtually every experimental pain paradigm."[22] From a clinical drug therapy management standpoint, based on available extensive literature reviews, there is no risk of lethal overdose with MC use, the most frequently reported side effect in the published clinical trials data being mild euphoria.[23,24] Additionally, MC dosing guidelines have also been put forward by clinicians, focusing on the principles of 'start low and go slow' and patient auto-titration.[25,26] The recommendation that patients who wish to use MC be counseled to use oral ingestion or a vaporizer to avoid any health hazards of smoking has also been published.[27]

There exists a population of chronic pain patients who are already on or have already tried opioids but wish to be treated with MC. This will become an increasingly important issue for pain management physicians to address because, as of the writing of this article, 13 states in the United States have functional MC programs, which legally protect physicians who wish to recommend MC from state or federal sanction,[27,28] and several more states are seriously considering adoption of MC laws. Despite growing interest in cannabinoid medicine, little health and life quality documentation exists in the modern literature on US patients who receive authorizations to use MC from licensed physicians in accordance with state laws to treat chronic pain and illness. Four of the 13 active state MC programs—Oregon, Nevada, Colorado, and Rhode Island—have taken efforts to Web-publish health statistics collected from their state registries that describe their MC-using patient populations. In Washington State, where authorized MC-using patients number in the 20,000 range,[25] they have not been studied at all; in California, where an officially recognized MC patient population has existed for 13 years, a small handful of observational studies, all in the San Francisco Bay Area, have been published.[29-31] The studies can be divided into two groups: access-based and delivery-based. MC access-based studies are conducted at point of medical authorization and involve patient interviews, chart reviews, and treatment monitoring, and MC delivery-based studies are conducted at sites where patients are physically delivered treatment with MC and generally involve directed or randomized patient sampling and administration of survey instruments. As the focus of this article is on MC access-based studies in the United States, the peer-reviewed literature in this area will be briefly reviewed. Currently, it consists of only three studies. First, Gieringer (2001)[29] reported data from a 2,480 patient panel treated by the late Tod Mikuriya, MD (1933-2007), a psychiatrist and widely published cannabinoid botanical medicine specialist. Mikuriya recorded more than 250 separate indications for MC under the *International Classification of Disease* Ninth Revision (ICD-9) system in these patients. One hundred percent of the patients had chronic conditions. On the basis of primary ICD-9 diagnosis, the largest category of patients interviewed by Mikuriya (1,133 patients, 45.7 percent) used MC for analgesia to treat conditions such as migraines and neuralgias, arthritis, musculoskeletal injuries, and degenerative disorders. The second largest category (660 patients, 26.6 percent) included patients who used MC to treat mood disorders, such as post-traumatic stress disorder, depression, bipolar disorder, and schizophrenia. The third largest category of patients (136 patients, 5.5 percent) used MC as a harm reduction substitute for problematic substance use, such as alcohol dependency (118 patients), opioid dependency (8 patients), and other substance dependencies (10 patients). Second, Sylvestre et al. (2006)[30] reported in a prospective observational study that MC use improved retention and virological outcomes in patients who received standard interferon and ribavirin treatment for hepatitis C virus (HCV) at Organization to Achieve Solutions in Substance-Abuse (OASIS), a community-based nonprofit clinic providing medical and psychiatric treatment to recovering problematic substance users in Oakland, CA. The interferon/ribavirin treatment

regimen is well-known for inducing painful and debilitating side effects, including fever, chills, muscle and joint aches, fatigue, headache, nausea, and depression. The study recruited 71 HCV+ recovering problematic substance users, of whom 22 (31 percent) used cannabis and 49 (69 percent) did not. The authors noted that the cannabis used by patients in the study "was often obtained with outside medical approval through local 'cannabis clubs'" (1,058). They showed that the cannabis-using group of treated patients were significantly more likely to remain on curative HCV treatment for at least 80 percent of the projected treatment duration (95 percent of cannabis users versus 67 percent of nonusers) and were three times more likely (54 percent of cannabis users versus 18 percent of nonusers) to be classified as sustained virological responders (no detectable virus 6 months after the end of treatment). Finally, O'Connell et al. (2007)[31] reported on the demographics, social characteristics, and patterns of cannabis and other drug use in 4,117 patients seeking access to MC at a thoracic surgeon's private practice in the San Francisco, California Bay Area during the period 2001-2007 based on data gathered from structured clinical interviews. Seventy-seven percent of the MC patients were male, 69 percent were Caucasian, and their median age was 32 years. Nearly all were already established cannabis users who self-medicated for a "mix of physical and emotional symptoms" (p. 5). Investigators found that, in this patient panel, once patients had established cannabis as their substance of choice, subsequent consumption of alcohol, and to a lesser degree, tobacco, diminished (p. 4). As a whole, these three MC access-based studies in California documented MC use in patients with chronic pain, patients undergoing poorly tolerated curative treatments, and patients with histories of problematic substance use.

To better understand the medical geography of MC access in Washington State, the present study was conducted to document MC utilization at a regional pain clinic. The present study is similar to the previous studies published on the Mikuryia, OASIS, and O'Connell patient panels in that it presents a comprehensive report and analysis of the total population of patients being managed with MC at a particular clinic. However, it differs from previous studies in that the patient panel presented here is unique population of patients—namely, those with chronic pain who present mainly via referral to a subspecialty pain management clinic who have been authorized to use cannabinoid botanicals as part of their pain management regimen. The purpose of this study was ultimately to gain a better understanding of the characteristics of this patient population, including factors such as gender, age, reasons for seeking treatment, diagnoses, levels of functionality, and how the use of MC impacted the use of other medications, including opioids.

STUDY DESIGN AND PROCEDURES

The study was sited at a regional pain clinic staffed by University of Washington (UW) faculty. One of the authors (GTC) provides access to MC treatment, information, and management to qualifying patients at this clinic. In conducting this study, the investigators acted as agents of the UW, and the chief administrator of the regional medical center with which the clinic is affiliated signed a letter of cooperation transferring study oversight responsibilities from the hospital institution to the UW IRB. Only 19 researchers in the United States have the necessary licenses to conduct research with cannabis supplied by federal agencies,[32] and of these, only two licensees have a currently active clinical research study. In this study, MC was not supplied to qualifying patients; patients only received medical authorization to engage in the use of MC use at the clinic, which they ultimately procured from various state-approved channels. The study was approved by the UW Human Subjects Division, Application No. 33067, with an approved Waiver of Health Insurance Portability and Accountability Act (HIPAA) Authorization, and a federal Certificate of Confidentiality (NCCAM 08-02) was issued by the NIH's National Center for Complementary and Alternative Medicine.

The study was conducted in 2007-2008 and based at a purposefully chosen office-based physical medicine and rehabilitation, neurology, and pain medicine outpatient clinical practice and referral site in southwest Washington State, where a proportion of patients are undergoing authorized MC treatment under the care of a state-licensed physician and UW faculty member. Retrospective chart reviews of the complete population of MC-using patients at this clinic were conducted, focusing on issues related to chronic pain management and functionality. All clinical data collected from charts were de-identified; patients' home zip codes were used to determine geographic areas from which patients traveled to

access treatment (using the initial three digits of a zip code if the geographic unit formed by combining all zip Codes with the same three initial digits contains more than 20,000 people). A code number was assigned and tagged to each chart and any information that linked the code numbers with the identities of the patients was held in confidence by the medical practice.

The study began by separating out the charts of all patients at the clinic, ages 18 and older, who have access to MC treatment through valid documentation provided by treating physicians included in their medical records. These were the only inclusion criteria. Any patient who may have been also taking the cannabinoid receptor type 1 blocker drug rimonabant, first marketed by the pharmaceutical company Sanofi-Aventis and available from international sources, would be excluded. Medical records were scored for health indicators such as time since first MC authorization, qualifying condition(s), McGill Pain score records, functionality, chronic pain management, opioid and other pain medication usage and change over time, and screened for any issues related to MC cannabis access (previous barriers, referrals from physicians unwilling to provide documentation, etc). See Figure 1 for the official study chart review data collection form. All diagnostic data collected from charts was verified by one of the authors (GTC), who serves as the medical director of this clinic and is fellowship-trained in pain medicine.

UNIVERSITY OF WASHINGTON
Chart Review Data Collection Form
"Cannabinoid Medical Geography in Washington State: Health Access in a Convenience Sample"

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Age _____ Gender _____ Ethnicity _____ ZIP ____

Time since first medical marijuana authorization:

Qualifying condition(s), and brief history of present illnesses (subjective vs. objective findings):

McGill Pain score records over time:

Functionality over time:

Chronic pain management over time:

Opioid and other pain medication usage and change over time:

Any issues related to medical marijuana documentation access (previous barriers, referrals from physicians unwilling to provide documentation, etc.):

Figure 1. Chart review data collection form. Additional pages attached as needed.

RESULTS

Diagnostic and treatment characteristics

One hundred thirty-nine patients' medical charts with valid documentation for their authorized MC use were identified, assigned a code number, 1 through 139, in random order, and reviewed. No patients were excluded due to concomitant use of a cannabinoid receptor-blocking drug. In many cases, medically relevant corroborating information supporting patients' diagnoses, such as such as mechanisms of injury, findings from imaging studies, surgical histories, and other etiological data, were collected in the chart review and summarized (see Appendix).

Demographic characteristics

The group consisted of 87 (63 percent) males with a median age of 47 years and 52 (37 percent) females with a median age of 48 years. Males ranged in age from 18 to 69 years old, and females ranged in age from 22 to 84 years old. Very little data on ethnicity were available.

Geographic characteristics

The MC-using patient population had home addresses that were predominantly (71.9 percent) in the same three-digit zip code area as the clinic site. Fewer and fewer patients from increasingly more distant three-digit zip code areas accessed MC treatment at the pain clinic. See Figure 2 for a map of patient home three-digit zip codes demonstrating distance-decay in estimated travel-to-clinic distances in this patient sample.

MC treatment duration characteristics

While all 139 patients had authorizations for the use of MC from this clinic, 15 patients (10.8 percent) had documentation of prior MC authorization from outside physicians also included in their medical records. In total, the sample contained 236.4 patient-years of authorized MC use, with one of the authors (GTC) serving as the primary authorizing physician for 225.4 (95.3 percent) of these patient-years. Patients ranged in authorization lengths from 11 days to 8.31 years. The median number of GTC—authorized patient-years

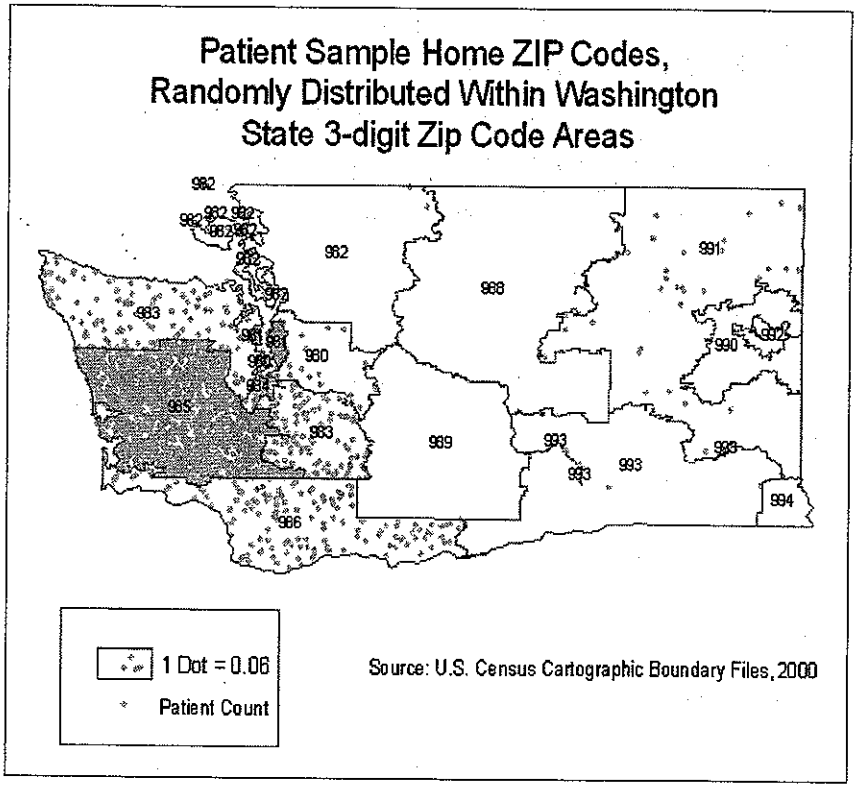

Figure 2. Map of patient home three-digit zip codes. This map was generated by utilizing the first three digits of patients' home zip code addresses to generate 138/0.06 = 2,300 dots, which were then spatially randomly distributed within each of their respective three-digit zip code boundary regions. One patient's home zip code was in IL and is not shown here.

in the sample was 1.12 years. Sixty percent of the GTC—authorized patient-years in the sample were in male patients, but female patients had on an average 0.18 years (~2 months) greater of authorized MC use than male patients.

Chronic pain characteristics

Using diagnostic and medical historical chart data, chronic pain documented in each MC-using patient was classified according to its syndromic nature and type. The following classes were used: Myofascial Pain Syndrome (MPS), Diabetic Neuropathy (DN), Neuropathic Pain Syndrome (NPS), Central Pain Syndrome (CPS), Phantom Pain (PP), Spinal Cord Injury (SCI), Fibromyalgia Syndrome (FMS), Osteoarthritis (OA), Rheumatoid Arthritis (RA), Discogenic Back Pain (DP), HIV Neuropathy (HIV), Visceral Pain (VP), and Malignant Pain (MP). This classification scheme is based on chronic pain etiology and is drawn primarily from a recent classification scheme advanced by pain management researchers Ramamurthy et al.[33] Results are shown in the Appendix. Most patients (n = 123, 88 percent) had more than one chronic pain syndrome or type present.

With regards to the distribution of chronic pain syndromes diagnosed in the patient population, myofascial pain syndromes were the most common (n = 114, 82 percent), followed by neuropathic pain syndromes (n = 89, 64 percent), discogenic back pain (n = 72, 51.7 percent), and osteoarthritic pain (n = 37, 26.6 percent). Central pain syndromes were present in 32 patients (23 percent), fibromyalgia pain in 19 patients (14 percent), visceral pain in 14 patients (10 percent), spinal cord injury pain in 8 patients (6 percent), rheumatoid arthritis pain in 6 patients (4 percent), diabetic neuropathic pain in 5 patients (4 percent), malignant pain in 5 patients (4 percent), phantom pain in 1 patient (1 percent), and HIV neuropathic pain in 1 patient (1 percent).

Characteristic access and delivery hurdles

Although patient records frequently documented significant symptom alleviation with MC and improved tolerance compared to other pain medications, the medical records of 37 percent of the patients in the sample (n = 51) had documented instances of major hurdles related to accessing MC, such as: prior physicians unwilling to authorize use, legal problems related to MC use, and difficulties in finding an affordable and consistent supply of medicine. Although not all legal issues are detailed, the specific legal problems documented in the charts all stem from charges of possession, cultivation, or use of cannabis. In some cases, patients had prior MC authorizations which were not honored by authorities, and in other cases, patients had no MC authorizations in place prior to their legal problems but had previously been unable to find physicians willing to approve of this treatment modality.

DISCUSSION

The 139 patients accessing MC treatment for chronic pain at the study clinic in rural Washington State were a group of severely ill patients with extensive injurious and pathogenic exposures, including 14 with traumatic brain and closed head injuries, nine with HCV, four with past history of gunshot wounds (one in the head), three with past history of shrapnel wounds, five with spinal cord injuries, one with amyotrophic lateral sclerosis (ALS), one with primary lateral sclerosis (PLS), one with myotonia congenita, one with HIV, and 19 with fibromylagia syndrome.

There was a predominance of males (63 percent) in the clinic's patient population who were accessing treatment with MC, a trend seen in all prior published demographic data on the American MC-using patient population studied at access[29-31] and delivery sites.[34-39] The reason for the predominance of males using MC is not clear, although there are many possibilities. Males are known to suffer more traumatic injuries resulting in chronic pain, which is reflective in our study population. Further, male patients may be willing to take greater risk with accessing a recently legalized treatment that still has considerable social stigma, with potential for criminal sanction, still attached. Other gender-specific factors could also be at play. Nonetheless, the male and female median ages did not significantly differ. Data also indicate that males and females are accessing MC at equal rates, given the similarity in median authorization times in males and females.

Geographically, most patients came from the 983 and 985 zip codes, which cover the following counties in Western Washington: Lewis, Thurston, Grays Harbor, Pacific, Mason, and Pierce. The spa-

tial patterning in the geographic data highlights the regionality of MC access in the sample, whereby patients using MC originate predominantly from the areas surrounding the clinic rather than just from any part of the state, regardless of distance. Although the pain clinic is in a rural setting, it is a subspecialty referral site, and thus patients who are referred there for consultation and pain management often have not received satisfactory symptom control in primary care settings. A review of chart notes in their medical records shows that these patients on follow-up or in initial self-reports frequently received satisfactory treatment of their refractory pain conditions with MC. This is seen, for example, in the following chart notes from four patients (quotations taken verbatim from medical records found in the Appendix). **Patient #101**: "He has been using marijuana on his own, as he feels [it] gives him the best pain relief of anything that he has used." 2-3 inhalations on a MJ cigarette 2-3[x]/day, & this improves his pain levels drastically w/o incapacitating him.; **Patient #7**: "using MJ successfully on a daily basis; pain from 8-9/10–>2-3/10; needs only ~2-3 inhalations from a MJ cigarette to get pain relief"; **Patient #38**: "marijuana daily with no SE; "only thing she is now currently using for pain"; **Patient #67**: "She has been using cannabis in the past and has had excellent results with respect to her migraine headaches. Using <1/4 oz/week". Moreover, there was no documentation in any of the medical records of patient cessation of MC use due to intolerance or any other medical reason.

A standard classification system for chronic pain diagnoses was used to describe the patient sample. Most patients (n = 123, 88 percent) had more than one chronic pain syndrome or type present. Male patients had slightly more chronic pain syndromes (mean of 2.9) when compared with females (mean of 2.8), but it is not possible to determine if this difference is statistically significant as these are not randomly drawn samples of all MC-using chronic pain patients in Washington State. There does not appear to be any clear correlation between age and number of chronic pain diagnoses in this patient sample, as patients with 1, 2, 3, or 4 chronic pain syndromes are represented at all decades of life. However, it can be seen that no patient over the age of 65 had just one chronic pain syndrome present. The data indicate that myofascial pain syndromes were the most common in this study population, followed by neuropathic pain syndromes, discogenic back pain, and osteoarthritic pain. These syndromes often involve inflammatory pathophysiological mechanisms, and their treatment with cannabinoid botanicals is consistent with the known analgesic and anti-inflammatory pharmacological effects of cannabinoid medicines.[10,40,41]

The data show that cannabinoid botanicals are being used to treat multiple pain syndromes in the same patient. Although patients presenting with chronic pain syndromes of multiple etiologies might raise the possibility that some of these poly-pain patients have somatoform disorders, the objective historical data found in their charts helps to substantiate the diagnoses of true chronic pain syndromes, rather than simply psychiatric illnesses manifesting as poly-pain. For example, if a patient has lumbar radiculopathy from discopathy in addition to multijoint degenerative osteoarthritis, this patient may well be suffering from three types of chronic pain syndromes: neuropathic, discogenic, and osteoarthritic. Even if there is a somatoform or psychiatric component to some patients' chronic pain, it is worth noting that MC can be used to treat some forms of psychiatric illness.[42] This includes the treatment of depression, which can have a significant mitigating effect on pain perception.[42] Cannabidiol (CBD), a biologically active component of cannabis present to varying degrees in cannabis strains, has been shown in signal transduction studies to act as an agonist with modest affinity at human 5-HT1a receptors.[43] Thus, CBD has useful potential in treating the depression that often accompanies chronic pain.[44]

It is clear from the chart review data presented in the Appendix that many patients had also used or were currently using other non-cannabinoid analgesics in the course of their treatment at the pain clinic or at clinics they have previously visited. In the recorded clinical encounter chart notes, a frequently observed issue is that these previously or concomitantly used non-cannabinoid analgesic medications often had bothersome or intolerable side effects for these patients. The common opioid-related side effects such as constipation, nausea, reduced appetite, sedation, altered mental status, pruritis, and headaches are repeatedly documented. In the section of the Appendix where MC-specific chart notes are tabulated, 26 patients' charts (19 percent) record medical historical data indicating that MC was better than all other pain medications that they had used in the past

and, in some cases, the only medication that they had found to be effective (see the Appendix chart notes for **Patient #'s 14, 20, 27, 35, 41-42, 48, 51, 52, 75-77, 83, 91, 100-101, 109-110, 114, 122, 124, 126-127, 134,** and **136**). Additionally, the chart review also revealed that many patients used MC adjunctively with opioids and other analgesics such as Selective Serotonin Reuptake Inhibitors (SSRIs) and antiepileptics.

Because of the retrospective, nonquantitative methodology used, it is difficult to make any definitive statements regarding the relationship between opioid and MC use in this patient population. Moreover, chart data on comprehensive medication lists was at times unavailable, not up-to-date, or not detailed enough to discern patients' exact chronological sequence of starting and stopping all their medications. Nonetheless, some patients' charts records clearly note reductions in the dosages of concomitantly used opioids; ie, **Patient #126**: "states openly that he has used marijuana in the past and it has helped his pain substantially. Tolerates it much better than opiates and his use of marijuana has substantially decreased his dependence on opiates"; **Patient #133**: "he is using MC to control his pain with good luck with that. He also uses oxycodone and oxyContin, but he tries to limit this." On the basis of the underlying pharmacology, it is known that cannabinoids provide analgesia via specific, receptor-based mechanisms, independent of the mechanisms of opioids.

More than one-third of the patients in the study sample have had past or ongoing hurdles in accessing or being delivered cannabinoid botanicals for medical use. A MC authorization functions in many ways as an authorization for medical asylum from relevant substance control/drug enforcement policies. However, given the frequent presence of cannabis possession-related legal problems in this patient sample, medical amnesty from relevant state laws for the use of cannabinoid botanicals is imperfect and continues to be occasionally disruptable by law enforcement and other administrative actions, given that the exact letter of Washington State's MC law in its current form only provides an affirmative defense for qualifying patients. Additionally, due to the nonreimbursable cost and general unavailability of delivery systems, medical-grade cannabis is frequently difficult for patients with documented medical needs to obtain.

CONCLUSION: CLINICAL RELEVANCE

By providing a medical geographic patient utilization "snapshot" of 236.4 patient-years of the use of MC at a regional pain clinic, this study provides further insight into the applicability of cannabinoid botanicals in the management of a broad range of refractory chronic pain conditions in adults, from myofascial pain and discogenic back pain to neuropathic pain and central pain syndromes. With physicians employing proper chart documentation of appropriate use, efficacy, and side effects at patient visits, in a manner similar to that used in opioid management of pain, there will hopefully be additional reports in the future on MC use in pain management to add to the clinical database.

Such a literature can grow only if certain stereotypes and myths about MC use are dispelled amongst pain management specialists and their regulators. The results presented here should help to deconstruct mythologies about the kinds of patients accessing MC treatment, including their young age or their propensity to malinger or feign disease. One prominent mythology is that patients who receive treatment with MC are not "truly sick."[45] An examination of the chart review data, which includes both subjective and objective diagnostic data substantiating patients' chronic pain illnesses, helps to deflate this concern. Further, in this sample, there was a relatively even distribution among gender and age, without any significant predominance in younger, male patients. Additionally, by reviewing medical records kept at a pain clinic referral site directed by a physician in academic medicine, this article should help to dispel stereotypes and caricatures about valid and invalid treatment with botanical and non-botanical cannabinoid medicines, as the legal distinctions between the different types of cannabinoid medicines are sites of active cultural contestation. Efforts to influence public opinion about cannabinoid medicines are made by federal law enforcement spokespersons, as seen in the two illustrations in Figure 3 of "Dr. Pot" and "Dr. Pat" that appear on a Drug Enforcement Administration (DEA) prevention Web site targeted toward adolescent education entitled "Rx pot: a prescription for disaster."[46]

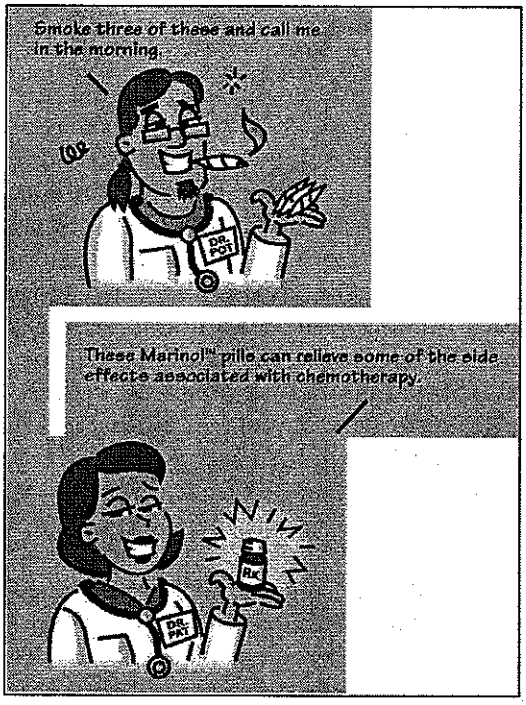

Figure 3. Federal efforts at validating purely chemical cannabinoid medicines and invalidating purely botanical cannabinoid medicines. Example of drug prevention education on a DEA Web site[46] targeted towards adolescents. The text that appears on the page is: "There's a lot of hype about so-called "medical" marijuana. Get to the facts-and cut through the haze." And, "The Government has already approved medications to help suffering patients."

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ACKNOWLEDGMENTS

Supported indirectly by funding from the National Institute of General Medical Sciences of the NIH (45 Center Drive, MSC 6200, Bethesda, MD 20892-6200) and the National Science Foundation 4201 Wilson Boulevard, Arlington, Virginia 22230. This research was done in fulfillment of the doctoral dissertation of Dr. Sunil K. Aggarwal, who was supported in his graduate studies by an NSF (4201 Wilson Boulevard, Arlington, Virginia 22230) Graduate Research Fellowship in Geography and Spatial Sciences and by the Medical Scientist Training Program at the University of Washington funded by the National Institute of General Medical Sciences of the NIH (45 Center Drive, MSC 6200, Bethesda, MD 20892-6200). Dr. Ethan Russo, who is a Faculty Affiliate in the Department of Pharmaceutical Sciences at the University of Montana, a Visiting Professor in the Institute of Botany at the Chinese Academy of Sciences, and a full-time Senior Medical Advisor at the Cannabinoid Research Institute of GW Pharmaceuticals, along with the other listed coauthors constituted Dr. Aggarwal's Doctoral Supervisory Committee chaired by Dr. Jonathan Mayer, and in this capacity all made important contributions to this work. Dr. Aggarwal is currently completing his fourth year at the University of Washington School of Medicine.

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Appendix

CHART REVIEW DATA

Pt #	Gender	Age	ZIP+3	MC Auth. length (yr)	Carter-only MC Auth. length (yr)	Primary diagnoses	Secondary diagnoses (if present)	Chronic pain types assigned in study
1	M	40	986	1.50	1.50	Chronic neuropathic pain secondary to ASIA Class A asymmetric quadriplegia, C7 on Left and T10 on Right		NPS SCI
2	M	58	983	0.32	0.32	Hepatitis C virus, neuropathic pain, chronic neck/back pain	Diffuse osteoarthritis	NPS OA VP
3	F	25	985	1.56	1.02	Chronic coccygeal pain secondary to trauma (stress Fx or chronic subluxation)	Secondary myofascial pain complicated by dysmenorrheal	MPS DP
4	F	48	985	0.42	0.42	Chronic low back pain	Right L5 radiculopathy secondary to synovial cyst	MPS NPS
5	M	50	985	1.24	1.24	Chronic back pain secondary to DJD+DDD throughout L-spine and Hx of C- and L-sprain/strain injury (fell off two-story roof); incr. Radicular pain depending on activity level	Chronic active hepatitis C virus	MPS DP VP
6	M	30	985	1.71	1.71	Severe chronic pain with strong neuropathic component secondary to Hx of Polytrauma with IED shrapnel throughout R side of body	Hyperpathia and allodynia	MPS NPS
7	M	18	985	0.35	0.35	Chronic pain secondary to traumatic brain injury (riding bike and struck by a motor home—was in coma [Glasgow scale 4])	Throbbing temporal headaches	MPS CPS
8	F	35	985	1.62	1.62	Cervical sprain/strain with upper back and neck pain and intermittent cervical radiculopathy	Osteoarthritis and degenerative joint disease	MPS NPS OA DP
9	F	55	986	2.27	2.27	Chronic pain of Fibromyalgia (headaches, joint pain, muscle pain, back pain)	Multiple chemical sensitivity	FMS
10	F	49	985	2.03	2.03	Chronic migraine headaches	Fibromyalgia	CPS FMS
11	M	25	985	0.66	0.87	Chronic neuropathic pain secondary to ASIA Class B paraplegia, spina bifida, Arnold-Chiari type 2 malformation	Hx of 36 surgeries	NPS SCI
12	M	37	985	4.77	4.77	Chronic neuropathic pain secondary to ASIA Class D T12 paraplegia (sledding accident @ Mt. St. Helen's with multiple spinal Fxs)		MPS NPS SCI
13	F	40	985	0.38	0.38	Chronic pain secondary to fibromyalgia (diffuse body pain in the upper back, neck, and lower back; joint stiffness)	IBS, CFS	FMS
14	F	39	985	0.97	0.97	Intractable pain (partly myofascial, partly neuropathic) secondary to systemic lupus erythematosus	Fibromyalgia, IBS	MPS NPS FMS
15	M	52	985	0.66	0.66	Chronic upper back and neck pain secondary to Moderately Severe to Advanced DJD+DDD in C-spine	History of MVA in June 2007—cervical sprain/strain	MPS DP
16	F	49	985	0.33	0.33	Chronic pain secondary to rheumatoid arthritis (pain/inflammation in most joints daily); tried predisone, relafen, solumedrol, enbrel, abatacept, remicade		RA

Pt #	Gender	Age	ZIP+3	MC Auth. length (yr)	Carter-only MC Auth. length (yr)	Primary diagnoses	Secondary diagnoses (if present)	Chronic pain types assigned in study
17	F	53	985	0.88	0.88	Chronic back, neck, and hip pain syndrome secondary to Fibromyalgia, severe osteoarthritis with multiple joint involvement, DJD; DDD t/o spine		FMS OA DP
18	M	59	983	0.25	0.25	Chronic neck and back pain secondary to DJD+DDD in L-spine and degenerative OA in L-hip and suspected widespread DJ arthritis	Diabetic peripheral neuropathy with neuropathic pain	DN NPS OA DP
19	M	36	985	1.02	1.02	Chronic pain syndrome secondary to TBI (myofascial and neurological) with R spastic hemiparesis and severe headaches (struck in back of head w/a sprinkler nozzle while trying to break up a fight on March 23, 1996)	L post. Occ. Lobe depressed skull Fx with mult. Bone fragments going into L. parietal lobe; L craniotomy	MPS CPS
20	M	43	993	1.25	1.25	Chronic neck, back, and leg pain and muscle spasms secondary to DJD+DDD t/o spine (worse in L-); L- and C-spinal stenosis w/peripheral neuropathic pain and myelopathy	Hx of OA; Hx of heavy construction work throughout most of life + truck driving	MPS NPS OA DP
21	M	63	985	2.23	2.23	Chronic L arm, shoulder, and neck pain secondary to Chronic L C6 radiculopathy status post-ant C diskectomy and fusion; (injury f/lifting 1/2 in thick plateglass for 150 gal aquarium tank on December 15, 1997)	Degenerative changes and moderate foraminal narrowing	MPS NPS DP
22	F	33	985	2.13	2.13	HIV-related peripheral neuropathy; on combivir and viracept (diag'd HIV+ on March 9, 1999; exposure to unprotected sex)	fibromyalgia and Hx of chronic depression	FMS HIV
23	M	54	985	1.87	1.28	Chronic pain secondary to fibromyalgia with chronic daily migraine headaches + intermittent cluster headaches	Hx of entrapment neuropathy in upper extremities	NPS CPS FMS
24	M	22	985	1.80	1.80	Chronic back pain secondary to Hx of spinal compression Fx's at T10-T12, status post surgical fusion (February 23, 2003: snowboarding acc. @ Whitepass; went off a jump, came down on R shoulder with immediate, excruciating pain)		MPS DP
25	M	53	985	0.56	0.56	Chronic headaches for 10-15 years, multifactoral with some component of migrainous pain but also likely myofascial tension headaches (prodromal effects with flashing lights)		MPS CPS
26	M	58	605	0.72	0.72	Significant ongoing spasticity secondary to primary lateral sclerosis (diagnosed in 2002)	Hx of benign intracranial tumor in L temporal lobe, resected (and work history involving nuclear reactor)	NPS CPS
27	F	45	985	0.68	0.68	Chronic low back pain with muscle spasms; likely myofascial in origin	Hx of OA and chronic depression (with family history of mental illness)	MPS OA
28	F	45	985	1.66	1.66	Chronic neuropathic pain and anorexia; upper back and neck pain and L C7 radiculopathy	Hx of Fibromylagia, DJD-DDD t/o spine (works doing physical labor)	MPS NPS FMS DP

Pt #	Gender	Age	ZIP+3	MC Auth. length (yr)	Carter-only MC Auth. length (yr)	Primary diagnoses	Secondary diagnoses (if present)	Chronic pain types assigned in study
29	M	47	985	5.81	5.81	Chronic, intractable lower back pain (initially stemming from a work-related injury that occurred in 1990 while working in bridge construction)		MPS
30	M	41	985	2.58	2.58	Chronic pain secondary to failed back surgery syndrome (13 spinal fusions; 1987 military accident + other later accidents)		MPS NPS SCI DP
31	F	53	985	0.95	0.95	Chronic neck and back pain secondary to fibromyalgia with chronic daily headaches	Hx of trauma to back in Aug 1983 (garage door came off and fell on top of her); leg break in three places in Dec 1983; etc.	MPS FMS
32	F	84	986	2.27	2.27	Chronic neck pain and headaches secondary to MVA 30 yrs ago w/ severe whiplash injury—chronic cervical neck strain, sprain and stiffness; occ. Radicular pain	Cervical DJD	MPS NPS DP
33	M	42	985	1.53	1.53	Chronic mid-low back pain and leg pain; Hx of Lumbar sprain/strain with disk extrusion at L3-L4 producing R L4 radiculopathy; Hx of heavy-duty truck driving, injury on November 27, 2006, rock quarry and autobody work	Diabetic peripheral neuropathy	MPS DN NPS DP
34	M	53	985	2.38	2.38	Chronic pain secondary to bilat. Recurrent carpal tunnel syndrome–continues to have numbness, burning pain (throughout waking period), swelling after surgeries	allodynia and hyperpathia	NPS
35	M	55	985	0.39	0.39	Chronic daily intractable pain secondary to Hx of polytrauma incl. mult. concussions and blunt trauma to back, neck, and head. (10 years ago: struck on back and across legs by a log ~150 ft in length and 1 ft diameter)		MPS
36	M	61	983	1.10	0.18	Chronic myofasical and neuropathic pain and muscle spasms in neck and back secondary to C- and L-spinal stenosis and multi-level DJD+DDD; intermittent radicular pain, numbness, tingling in arm + leg L > R	Hx of asbestosis, Hx of MVA in 2006 with numerous soft tissue and head injuries; Hx of work as longshoreman/truck driver	MPS NPS DP
37	M	53	985	0.35	0.35	Chronic pain secondary to complex hx of mult. Polyorthopedic injuries incl. compound fx's in both legs w/ residual deformities, facial injuries w/ residual defects, closed head injury with residual defects	1979, 1983—motorcycle accidents	MPS CPS
38	F	35	985	2.71	2.71	Chronic pain secondary to severe L ulnar neuropathy (pain and numbness since 1996)—status post surgery	Arthritic/musculoskeletal lower back and hip chronic pain	MPS NPS OA
39	M	37	985	0.41	0.41	Chronic neuropathic pain and Ashworth Grade 3 spasticity secondary to ASIA Class C C7 quadriplegia	Depression	NPS SCI
40	M	64	985	2.02	2.02	Chronic back and neck pain secondary to chronic L C6-7 radiculopathy and DJD+DDD in C-spine	Moderate bilat. peripheral neuropathy of the upper and lower extremities w/ superimposed L carpal tunnel and bilat cubital tunnel syndromes	NPS DP

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41	F	60	985	0.42	0.42	Chronic pain syndrome in shoulders (pred. myofascial) secondary to Hx of bilat. Rotator cuff. Tears requiring surgery and underlying DJD and inter-articular dysfunction (hx of caregiving for heavy clients)	Potential for developing frozen shoulder	MPS OA
42	F	45	985	0.47	0.47	Chronic low back pain with peripheral neuropathic pain (L sciatic nerve entrapment)—numbness, tingling, and very cold feeling	Fibromyalgia and hx of bilat carpal tunnel syndrome	MPS NPS FMS
43	M	28	986	2.48	2.48	Chronic muscle cramping secondary to myotonia congenita (Thomsen's Disease) (first seen on March 13, 1997 @ age 17)		MPS
44	M	38	985	2.29	2.13	Chronic neuropathic pain in lower extremities secondary to myalgia paresthetica in the lat. Fem. Cut. Nerve; Hx of two MVA's 1985+1988—residual chronic pain in head and L knee	Chronic thrombophlebitis (recurring DVT's in legs; hypercoagulability— Protein C and Factor V Leiden deficiency)	MPS NPS
45	F	45	983	1.75	1.48	Chronic pain in lower back and hips secondary to HX of DJD+DDD in L-spine and L- decompression in 1999	Chronic migraine headaches with history suggestive of fibromyalgia, but not all criteria met; hx of chronic depression and anxiety	MPS CPS FMS DP
46	M	53	985	1.37	1.37	Chronic neurogenic and myofascial lower back, neck and radicular pain secondary to DJD+DDD t/o spine with Hx of lumbar laminectomy	Osteoarthritis and chronic daily headaches	MPS NPS OA DP
47	M	67	985	1.79	1.79	Severe Chronic lower back pain and intermittent bilat. Lower extremity pain (R>L). C- and L- DJD+DDD and Hx of C- and L- sprain/strain injuries (Hx of truck driver work and industrial accidents)	L spastic hemiparesis and L hemiplegia secondary to thromboischemic infarct in R MCA (stroke)	MPS CPS DP
48	M	43	985	1.12	1.12	Chronic pain secondary to severe polytrauma w/ massive traumatic brain injuries and peripheral orthopedic injuries (cortical blindness)—headaches and L leg pain centered on knee		MPS CPS
49	F	49	983	0.68	0.68	Chronic pain secondary to DJD+DDD in C-spine w/ herniated disk @ C6-7, impinging on C7 nerve root (Hx of injury at work in 2005 when she had a hot, searing pain down her arm)		NPS DP
50	F	40	985	0.80	0.80	Chronic neck and back pain secondary to MVA	Possible osteomyelitis in pelvis	MPS
51	F	63	983	0.55	0.55	Metastatic Breast Cancer (terminal with six mo to live; on hospice. Diag'd in 2000 ER and PR sensitive on biopsy) L side pain 24/7		MP
52	F	22	985	0.78	0.78	Chronic daily myofascial lower back pain with some radiation to legs (numbness + tingling in ant. Lat. Aspects of legs) (Hx of MVA on September 15, 2006 when her Geo was rear-ended by delivery truck)	Hx of Tarlov Cyst in Spine (L4/L5)	MPS NPS
53	F	23	985	1.18	1.18	Chronic Severe myofascial lower back pain w/ underlying DJD+DDD and numerous areas of muscle spasm; Hx of L- sprain/strain	Chronic daily headaches with possible fibromyalgia	MPS FMS DP

Pt #	Gender	Age	ZIP+3	MC Auth. length (yr)	Carter-only MC Auth. length (yr)	Primary diagnoses	Secondary diagnoses (if present)	Chronic pain types assigned in study
54	M	58	983	6.76	6.76	Chronic neck and back pain due to Chronic stable C- myelopathy secondary to C- spinal stenosis; adv. DJD+DDD in C- and L-spine; disc herniation at C6/7 with radiculopathy; Hx of L-decompression and restenosis	Hx of depression, petit mal seizures, joint pain and partially neurogenic bladder	NPS OA DP
55	M	36	986	2.39	1.04	Chronic pain, including radicular pain, in lower back, mid back, hips, L leg, L wrist secondary to crushed L leg in conveyor belt w/ likely injury to the post. Tibial and common peroneal nerves	Hx of DVT in L leg with thrombectomy; mild discogenic degenerative change @ L4-L5 and L5-S1	MPS NPS DP
56	M	26	985	0.18	0.18	Chronic neuropathic pain secondary to ASIA Class C C5 quadriplegia and Ashworth Grade 2 spasticity secondary to GSW on January 23, 2008 (shot at bank)		MPS NPS SCI
57	M	23	980	0.57	0.57	Chronic head pain secondary to extensive craniophryngioma resection w/ gamma-knife (August 13, 2009). Post:CFS w/ chronic headaches and depression; some pain that shoots up in a band-like fashion f/ neck	Cortical blindness	MPS NPS CPS
58	M	65	986	3.38	3.38	ALS (diag'd in 2004)—terminally ill—increasing weakness, pain, dysphagia, dysarthria, gastronomy		NPS
59	F	48	981	5.94	5.94	Chronic neck and back musculoskeletal pain, secondary to DDD greatest at C7-T1 and nerve damages from 4 (three back + one neck) surgeries		MPS NPS DP
60	M	46	985	0.36	0.36	Severe, Chronic, daily lower back, neck, shoulder, bilat hip pain secondary to Hx of post-traumatic syringomyelia in C-spine (12 yrs ago severely injured in sledding accident) and advanced DJD+DDD t/o spine	Hx of bilat shoulder surgeries secondary to rotator cuff injuries; testicular pain	MPS NPS DP
61	M	19	985	3.36	3.36	Chronic neuropathic pain secondary to C-M-T (type II) disease (mutation not yet determined)		NPS
62	F	54	985	4.46	4.46	Chronic neck pain and chronic daily headaches secondary to C- dystonia, C- myleopathy, Adv DJD-DDD in C-spine, Gliosis in Cerebral Cortex (early MS? Fibromyalgia?)	MVA in Jan 2003, bike accident in 1982; HX of CFS, IBS, OA	MPS NPS OA DP
63	M	47	983	0.20	0.20	Chronic neck, low back, and gen. body pain, spasm, intermit. R severe radicular pain,Hx of GSW in 1976. Regained ability to walk post-paralysis. Hx of stenosis @ C5-6, L C6 root impingement, L4-5 lamin.	Incomplete SCI and R brachial plexus injury. Hx of untreated injuries from heavy work while incarcerated	MPS NPS SC IDP
64	F	51	985	1.07	1.07	Chronic bilat. Hip pain secondary to DJD-DDD in L-spine, DJD in hips and early RA and likely OA	Hx of fibromyalgia	FMS OA RA DP
65	F	47	986	2.39	2.39	Chronic neuropathic pain (allodynia and hyperpathia) in L upper extremity secondary to previous mastectomy w/ removal of lymph tissue; myofascial pain in upper back and neck (2003-breast cancer diagnosis)	Chronic lymphedema	MPS NPS MP

Pt #	Gender	Age	ZIP+3	MC Auth. length (yr)	Carter-only MC Auth. length (yr)	Primary diagnoses	Secondary diagnoses (if present)	Chronic pain types assigned in study
66	M	33	985	0.88	0.88	Chronic back and neck musculoskeletal pain syndrome. Significant degen of L shoulder, post acromioplasty w/ decompression; degenerative changes in C-spine	Lumbar strain w/ hx of assault in 2005 and work injury in 2005. Hx of TBI (hemiplegia, dysarthria, behavioral+ cognitive impairment), seizures	MPS CPS OA DP
67	F	39	980	0.60	0.60	Chronic daily migraine headaches with a myofascial component and Hx of absence seizures and subarachnoid cyst in medial L temporal lobe	Hx of numerous musculoskeletal problems, incl. bilat chondral malacia in knees	MPS CPS OA
68	M	41	983	1.68	1.68	Multiple Sclerosis (with positive white matter lesions on MRI and vague lesions in spinal cord which could represent demyelination; + FH of MS)		NPS CPS
69	M	54	985	0.05	0.05	Chronic low back pain and bilat. Leg pain w/ sharp, stabbing pain in buttocks (L > R) secondary to Hx of L sprain/strain, degen changes in L-spine and multilevel DJD; bulging annulus and retrolisthesis @ L4-L5	Hx of back injuries (August 2007--gravel work) and another 20 yrs ago	MPS NPS DP
70	M	51	985	0.70	0.70	Chronic pain and significant neuropathic pain secondary to C-M-T (Type II suspected)—back pain and weakness from pelvis down		MPS NPS
71	M	68	985	8.31	8.31	Chronic back and neck pain secondary to L-spine stenosis w/ chronic L L5-radiculopathy, C-spinal stenosis, DJD+DDD in L- and C-spine. Hx of decompression surgery in back	Hx of construction injury in 1980 which ruptured L5-S1 disc and herniated L4-L5 disc	MPS NPS DP
72	F	45	985	2.50	2.50	Chronic intractable pain in lower back and hips secondary to C-and L- DJD+DDD, ongoing C and L radiculopathy, bilat spondylosis @ L3 w/ grade 1 spondylolisthesis of L3-L4; L3 root impingement	Hx of back pain traces back to injuries from bucking and training/riding horses	MPS NPS DP
73	F	57	985	6.11	6.11	Chronic hip and myofascial pain in neck and back secondary to iliotibial band dysfunction and DJD+DDD in C- and L-spine with spondylolisthesis @ L3/4 and C-spine stenosis	Fibromyalgia equivalent, Hx of Chronic active Hepatitis C, Hx of Connective Tissue disease assoc. w/ systemic sarcoidosis, borderline epilep	MPS FMS DP VP
74	M	25	985	0.03	0.03	Chronic pain syndrome secondary to TBI w/ abnor. Cognitive and higher exec func., slowed motor planning, impaired sensorium, aggression, anger mgmt issues (motorcycle acc. In Oct 1997-> R renal hematoma)	Maxillary sinus fracture	MPS CPS VP
75	M	68	985	0.91	0.91	Chronic pain syndrome w/component of myofascial pain and DJD-DDD (Veteran w/ 3 tours of duty in Vietnam); OA	PTSD, BPD II	MPS OA DP
76	M	50	981	0.33	0.33	Multiple Sclerosis, relapsing, remitting. Previously carried diag of progressive, but converted (15 yr hx)—> major issues: memory, balance, walking		NPS CPS
77	F	22	986	2.04	2.04	Chronic intractable severe lower back pain (lower L-spine, sacrum, coccyx) with Hx of pelvis Fx in trauma as a child	PMS	MPS

Pt #	Gender	Age	ZIP+3	MC Auth. length (yr)	Carter-only MC Auth. length (yr)	Primary diagnoses	Secondary diagnoses (if present)	Chronic pain types assigned in study
78	F	46	985	4.04	4.04	Chronic pain secondary to fibromyalgia with frequent headaches, multiple joint pain, chronic nausea with difficulty eating	Hx of fall from bike and broken "tailbone" but no radiographic evidence of Fx of coccyx	MPS FMS
79	M	53	985	0.92	0.92	Chronic abdominal pain secondary to endstage polycystic kidney disease with a component of myofascial pain in upper back and neck and chronic daily headaches	DJD+DDD throughout spine and Hx of multiple facial fractures when he broke his face and nose in six places, requiring surgical repair (1986)	MPS DP VP
80	M	34	985	0.79	0.79	Chronic lower back pain syndrome secondary to Hx of vertebral hairline Fx's over 10 yrs ago. Init accident was while working on a horse ranch as a ranch hand		MPS
81	F	50	991	2.02	2.02	Chronic pain syndrome in hands, feet, neck, shoulders, back (29 yrs). secondary to spastic L hemiparesis secondary to massive TBI w/ Ashworth Grade 3 spasticity (from MVA in 1978). Past phy abusive rel.	Hepatitis C Virus post interferon Tx; Lumbar Laminectomy Hx from DJD-DDD leading to spinal stenosis, hand deformities	MPS NPS CPS DP VP
82	F	43	985	0.66	0.66	Significant nausea secondary to chemotherapy assoc. w/ T1 lobular breast cancer (status post-mastectomy w/ C- and axillary lymph nodes removed)	Chronic severe R-sided burning leg pain and numbness from R S1 radiculopathy and Hx of DJD+DDD (MRI documented)	MPS NPS DP MP
83	M	25	981	0.37	0.37	Chronic pain secondary to cluster headaches behind R eye (problem since childhood with 15 yrs documentation) (excruciating pain w/ vision disturbances and nausea)		CPS
84	M	43	985	1.14	1.14	Chronic musculoskeletal pain syndrome in upper back, neck, knees, hips secondary to C- and L- DJD+DDD w/ C8 C-radiculopathy; Hx of injury to neck in 2005 when running, collided w/ a wall		MPS NPS DP
85	M	28	985	2.08	1.25	Chronic intractable pain and profound spasticity (Ashworth grade 3-4) secondary to severe TBI w/ cognitive impairment and spastic L hemiparesis. Hx of MVA on October 24, 2001		MPS NPS CPS
86	F	55	983	0.23	0.23	Chronic intractable pain secondary to Hx of polytrauma in MVA; advanced DJD-DDD t/o spine; C- myleopathy	Chronic myofascial pain syndrome vs. post-traumatic fibromyalgia	MPS NPS FMS DP
87	M	51	985	3.53	3.53	Chronic shoulder pain, daily neuropathic pain with burning, numbness and tingling in feet secondary to Chronic active Hepatitis C, severe DJD and OA, RA, migraine headaches, L rotator cuff tear	Hx of L total knee replacement and bilat carpal tunnel syndrome by EMG; morbid obesity	MPS NPS CPS OA RA DP VP
88	F	33	982	0.35	0.35	Chronic back and neuropathic pain secondary to R sciatica secondary sacroiliac joint dysfunction. Problem since August 2007	Pregnant in 3rd trimester as of January 23, 2008	MPS NPS
89	F	52	985	6.80	6.80	Chronic back and sciatica pain with L-spinal stenosis and DDD (on MRI); Hx of fall injury in 1992 with blunt trauma to lower back		MPS NPS DP

Pt #	Gender	Age	ZIP+3	MC Auth. length (yr)	Carter-only MC Auth. length (yr)	Primary diagnoses	Secondary diagnoses (if present)	Chronic pain types assigned in study
90	M	72	985	0.68	0.68	Chronic severe pain in back and lungs secondary to COPD (steroid-dependent)	Multiple hernia repairs; Hx of AAA repair	MPS VP
91	M	44	985	0.68	0.68	Chronic intractable back pain including lumbar radiculopathy secondary to failed back surgery syndrome including DDD @ L4-L5 and microdiskectomy in 2004		MPS NPS DP
92	F	56	985	5.01	5.01	Chronic back and neck pain and C- myleopathy w/ radicular pain secondary to C-spinal stenosis and C- and L-sprain/strain and DJD+DDD t/o spine	Hx of seizure disorder, Hx of migraine syndrome vs. cervicogenic headache, Hx of injury working as waitress on October 16, 2005	MPS NPS DP
93	M	58	985	2.81	2.81	Chronic pain syndrome in LB, shoulders, and hips w/ R leg radic.Pain; also in neck, hands, knees (->10 yrs) secondary to OA w/ mult. Joint involvement incl.:neck, back, shoulder, hips, knees and bilat Carpal T.S.	Hx of PTSD with 2 tours in Vietnam	MPS NPS OA
94	F	61	985	1.34	1.34	Chronic pain with myofascial component and C- myleopathy secondary to DJD+DDD t/o spine (on MRI), OA, C-spinal stenosis, and bilat. Rotator cuff tendonitis		MPS NPS OA DP
95	F	23	981	0.33	0.33	Chronic pain in joints (shoulders bilat) 2ndar to Behcet's disease, a very rare chronic inflammatory disorder (flare-ups incl. frequent ulcerations in soft tissues, uveitis, peripheral neuropathy) (probs for 5 yrs)	Hx of grand mal seizures; Hx of methotrexate/prednisone tx	MPS NPS RA
96	M	53	985	1.60	1.60	Chronic pain syndrome in low back, neck, R leg, and knees with chronic radicular pain secondary to DJD+DDD in C- and L-spine and OA in spine, knees, and hips		MPS NPS OA DP
97	F	52	985	2.00	2.00	Chronic back and leg pain (began @ work November 2001 when there was an increase in car commuting for work)	Hx of IBS	MPS
98	M	43	985	2.04	2.04	Chronic UBP and LBP and seizures secondary to: (1) fell down stairs,struck head 1 mo Ago; (2) MVA w/ vertex head injury w/o LOC (December 2005); (3) Class 4 TBI-77ft fall from tree, mult.spinal compression fractures (June 17, 1992); OA; DJD-DDD t/o spine		MPS CPS OA DP
99	M	32	984	1.47	1.47	Sev. chronic neuropathic pain f/ trigeminal nerve injury secondary to complex R tripod and orbital blowout and R zygomatic arch Fxs w/ shrapnel and wounds in R orbit, soft tissue trauma to IT fossa-IED expl in Iraq(vet)	Multiple Facial Reconstruction surgeries throughout 2004-6; severe hyperalgesia and allodynia	MPS NPS
100	M	52	981	1.27	1.19	Chronic upper back, neck, lower back and bilat radicular pain secondary to DJD-DDD in C- and L-spine and OA; chronic daily headaches. Hx of # of injuries to upper back and neck		MPS NPS OA DP

Pt #	Gender	Age	ZIP+3	MC Auth. length (yr)	Carter-only MC Auth. length (yr)	Primary diagnoses	Secondary diagnoses (if present)	Chronic pain types assigned in study
101	M	52	985	0.41	0.41	Chronic back, leg, bilat. Shoulder pain secondary to DJD and failed back surgery syndrome (eg, diskectomy, multilevel fusion, rotatof cuff repairs)		MPS NPS OA DP
102	F	49	985	3.23	3.23	Chronic back and neck pain with myofascial component secondary to C- myleopathy secondary to spinal stenosis and DJD-DDD in spine	Hx of Hashimodo's thyroiditis, Hx of fibromyalgia	MPS NPS FMS DP
103	M	45	985	0.46	0.46	Chronic LBP and S1 radiculopathy (by EMG) secondary to small R postereolateral herniation @ L5-S1, compressing the origin of the S1 nerve root (problem for 14 yrs)		MPS NPS DP
104	M	45	983	1.37	1.37	Chronic myofascial back pain and chronic daily headaches secondary to massive TBI, C- sprain/strain— Hx: September 26, 1991: sustained bilat eye + C-injury. Employed as truck driver. Tire blew up in face, fell bkwds ~12ft	Bilat corneal foreign body, dislocated C- vertebrae, spained neck, lumbar region; more recently, an MVA—C-/L- sprain; depr/anxiety/rage	MPS NPS CPS
105	M	46	984	3.66	3.66	Chronic pain and chronic daily headaches secondary to Hepatitis C (Hx of IVDU), TBI (w/ Hx of GSW to head in 1986) w/ spasticity, ataxia; Hx of MVA September 8, 2006	Hx of three arthroscopic surgeries of L knee; Hx of open kidney surgery 1986; Hx of kidney stones with lithotripsy	MPS NPS CPS VP
106	M	46	983	1.11	1.01	Chronic pain secondary to C- stenosis, DDD, cervicobrachial radiculopathy and closed head injury (1983). Hx mult. Spinal surgeries (L5-S2 fusion, redo-diskectomy @ S2 in 1997)		MPS NPS CPS DP
107	M	69	983	2.33	2.33	Chronic back and neck pain and intermittent shooting pain down posterolateral aspect of R leg secondary to post-polio syndrome (in R leg as a child)	Hx of Osteoarthritis and glaucoma	MPS NPS OA
108	M	49	985	8.10	8.10	Chronic myofasical pain and C- myleopathy secondary to adv. C- DJD+DDD, L C7 radiculopathy and spinal stenosis	Chronic Abdomi. Pain Syndr secondary to Chron. Active HCV, Liver t'plant candidate—end-stage cirrhotic liver (post- IFN Tx), likely transfus exposure	MPS NPS DP VP
109	M	51	985	0.70	0.70	Chronic intractable pain in LB, hips, knees, shoulders, worse in AM. OA Hx with likely DDD in spine. Retired former rancher		MPS OA DP
110	F	49	985	0.70	0.70	Chronic LBP centered in mid-L region for most of adult life; Hx of DJD+DDD, systemic OA; Hx of chronic daily headaches	Hx of mild glaucoma	MPS OA DP
111	M	66	985	0.10	0.10	Chronic LBP + appetite loss secondary to POEMS syndrome; Hx of multiple myeloma, Hx of lung CA w/ lobectomy of R upper Q	Polyneuropathy (peripheral), organomegaly (liver + spleen), endocrinopathy, monocolonal gammopathy, trophic skin changes; Raynaud's S	MPS NPS VP MP

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112	M	33	985	0.93	0.93	Chronic bilat knee pain with joint swelling secondary to RA; Chronic LBP and stomach upset associated with RA tx. Hx of snowboarding accident—bilat. Knee injury w/ surgical repair		MPS RA
113	M	55	985	1.12	1.12	Chronic pain,partially vascular,partially neuropathic f/ R below-knee amputation secondary to severe peripheral vascular disease; vascular claudication in L leg; Chronic neck pain w/ ant. C- diskectomy and fusion	Hepatitis C virus; clinical depression	MPS NPS PP DP VP
114	M	51	985	1.27	1.27	Chronic pain in neck + back and loss of appetite secondary to severe OA w/ mult. Joint involvement, incl spine, hips, knees, ankles; DDD t/o spine; hx of Compression Fx in spine; bilat tot. hip replacement	Suspect early diabetic neuropathy and presumed osteoporosis	MPS DN OA DP
115	M	61	991	2.02	2.02	Chronic pain syndrome w/ sev. resid. Neuropathic pain secondary to sev. Deformity of R arm w/ Hx of complete R median nerve lac., post-traumatic neuroma, and deformity of L arm secondary to GSW (L) and shrapnel injury on R with bone damage—on February 28, 1967 in Vietnam	Medically documented primary open angle glaucoma vs ocular hypertensive; congenital cataracts	MPS NPS
116	F	47	985	5.01	5.01	Chronic pain secondary to fibromyalgia and Hx of OA and C-spine DJD+DDD	Chronic fatigue syndrome and "fibrofog"	FMS OA DP
117	M	25	985	0.27	0.27	Chronic intractable back pain secondary to idiopathic scoliosis (slowly progressive and quite advanced—60° in thoracolumbar spine and S-shaped stenosis); severe headaches		MPS
118	F	24	985	1.12	1.12	Chronic myofasical pain syndrome including sacrococcygeal pain aka coccydynia. Since age 10 secondary to contusion (headbutted by a child she was babysitting)	Extensor tendonitis in both wrists with Hx of R wrist Fx @ age 8 and L wrist Fx @ age 17	MPS DP
119	M	46	985	1.21	1.21	Chronic pain in lower back, neck, ankles secondary to C- radiculopathy, OA, DJD-DDD, Hx of Bilat Carpal Tunnel surgery, Hx of MVA with severe trauma in 1986		MPS NPS OA DP
120	M	51	985	2.56	2.56	Chronic neuropathic and myofasical pain: LBP and intermit. Radic. Pain secondary to failed back surgery syndrome; DJD+DDD t/o C- and L-spine, C- and L-spinal stenosis, herniated disc @ L5/S1, OA; injury HX; Chronic headaches secondary to underlying DJD	October 6, 1998—"Have been hit by Tree Top and two logs from about 8-feet high and Maple top all across low back. Hit on head and neck by Top and fell on Ribs bounced in air, Land on ribs and many others."	MPS NPS OA DP
121	F	23	985	0.30	0.30	Chronic pain in lower back and R leg secondary to DJD in L-spine, herniated disc @ L5-S1, bilat L- and S1 radicular pain, meralgia paresthetica on R (entrapment of lat. Fem. Cut. Nerve)	Hx of migraine headaches w/ myofascial tension	MPS NPS CPS DP

Pt #	Gender	Age	ZIP+3	MC Auth. length (yr)	Carter-only MC Auth. length (yr)	Primary diagnoses	Secondary diagnoses (if present)	Chronic pain types assigned in study
122	F	54	985	0.48	0.48	Chronic neuropathic and musculoskeletal pain secondary to Hx of AVM resection w/ residual L-sided spastic hemiparesis and R sided pain	Hx of R rotator cuff repair in 2000	MPS NPS CPS
123	F	74	983	1.18	1.18	Chronic musculoskeletal pain syndrome in back and shoulders w/ muscle spasms secondary fibromyalgia and underlying OA in spine + hips; Hx of L laminectomy L5-S1; Hx of freq. headaches; DDD multilevel	Signs and Sx's of IBS; Hx of Depression secondary to early loss of son	MPS FMS OA DP
124	M	51	985	1.47	1.47	Chronic LBP secondary to DJD+DDD t/o spine, L radiculopathy; Hx of bilat foot numbness; sensory hypesthesia in extremities; Hx of heavy work of caring for wife	Hx of lymphedema	MPS NPS DP
125	M	43	985	0.61	0.61	Chronic mid+low BP with DDD(L5-S1) and radiculopathy; pain radiates to L arm and both legs, R>L. Pain in L upper back radiates to posterior L arm; pain in mid+lower back radiates to R gluteus; injury Hx	Numbness from top of foot to anterior shin; has had pain since 1992, injured while heavy lifting; Grade 1 anterolisthesis of L5 on S1; Gr 1 retrolisthesis of L4 on L5	MPS NPS DP
126	M	50	985	1.08	1.08	Chronic ongoing abd pain secondary to chronic active hepatitis C; Chronic neck and back pain secondary to C- and L- DJD+DDD; Hx of splenic mass, status post splenectomy	Hx of panic disorder; hx of coccidiomycosis (Valley fever)	MPS DP VP
127	M	47	985	2.40	0.39	Chronic neck and back pain—multifac—neuropathic, myofascial, and mechanical in nature—secondary to L spinal stenosis, spondylolisthesis of L5 on S1, R ulnar neuropathy; hx of MVAs in the late 70s/early 80s; Hx of competitive wt liftting in early 90s, w/ damage; hx of logging injuries	L spinal stenosis is secondary DJD+DDD w/ both central and foraminal canal stenosis;subactue L5-S1 radiculopathy; mild CP f/ brain trauma from childhood	MPS NPS CPS DP
128	M	38	985	5.01	0.68	Chronic pain syndrome in back and neck secondary to C- + L- spinal stenosis, with large disk protrusion @ C6, C7 producing moderately severe central canal stenosis.Herniation @ L3/L4, impinging on R L4 root		MPS NPS DP
129	M	55	985	1.48	1.48	Chronic pain syndrome t/o back and neck secondary to post-polio syndrome (age 13, likely exposure To live-virus vaccinated boy) w/ sig. inv. of lower extremities; Hx of OA, RA;Hx of numerous reconst joint surgeries	Chronic fatigue and peripheral vascular disease	MPS NPS OA RA
130	M	37	986	1.22	1.22	Chronic pain syndrome w/ chronic daily headaches R spastic hemiparesis, secondary to TBI w/ polytrauma, Hx of incomplete SCI, Hx of head-on MVA (pedestrian vs. MV) in July 2002	2002 accident required craniotomy and placement of ventriculoperitoneal shunt; also prior accident w/ coma in 1992	MPS NPS CPS SCI
131	F	58	985	1.75	1.75	Chronic L shoulder pain with radicular Sx in L arm with Hx of L rotator cuff tear (w/ surgical repair x2: '02 and '03); Hx of R hip pain, Hx of C- DJD+DDD. Hx of truck driving w/ injury on March 1, 2001	Hx of tension and migraine headaches	MPS NPS CPS DP

Pt #	Gender	Age	ZIP+3	MC Auth. length (yr)	Carter-only MC Auth. length (yr)	Primary diagnoses	Secondary diagnoses (if present)	Chronic pain types assigned in study
132	M	55	985	0.53	0.53	Chronic myofascial pain esp in LB and legs secondary to limb-girdle muscular dystrophy (familial, late-onset); disc herniations @ L4/L5 and L5/S1; profound weakness	Chronic anxiety disorder	MPS DP
133	M	53	985	1.14	1.14	Chronic pain: chronic C myelopathy secondary to severe C stenosis with Hx of ant. C diskectomy and fusion; chronic neuropathic pain (radicular sx's); Hx of Chronic rotator cuff impairment on L, status-post surg	Hx of injuries as CNA; C- and L- DJD+DDD, progressive, erosive OA; Hx of Sjoren's disease; hx of IBS	MPS NPS OA DP
134	F	52	981	0.37	0.37	Extreme R sided sciatic pain secondary to either L radiculopathy vs. piriformis syndrome; Hx of DJD throughout body—hips, knees, L- and C-spine; Hx of knee pain (Bakers cyst), morning stiffness	Hx of Lyme disease	MPS NPS OA
135	F	42	985	1.50	1.50	Chronic upper back and neck pain w/ chron daily headaches, mixed migrainous and tension, w/nausea (since 2000) secondary to C- DJD+DDD, chronic OA, Hx of multi-lev laminectomy and fusion at C4-5, ongoing radic pain in upper extrem	Ashworth grade 2 spasticity	MPS NPS CPS OA DP
136	M	47	985	5.88	5.88	Chronic intractable myofascial pain in the back, neck, + radicular pain and Ashworth gr2 spasticity secondary to DJD+DDD t/o spine and C-spine stenosis, Hx of MCA infract w/ R spastic hemiparesis; chronic rotator cuff tendinitis in both shoulders	Hx of motorcycle accident 16 yrs ago w/ C-, L- sprain/strain and fractures, Hx of OA, Hx of diabetic peripheral neuropathy, Hx of migraines	MPS DN NPS CPS OA DP
137	M	40	985	0.61	0.61	Chronic, intractable neck, back, R wrist pain secondary to severe L Brachial plexus injury, R sciatica, multiple spinal fractures: C1, C7, T9; TBI; freq. headaches; Hx of serious Life-threatening motorcycle accid. (September 8, 2006)		MPS NPS CPS
138	M	68	985	0.20	0.20	Chronic pain secondary to C-myleopathy, adv. DJD+DDD t/o spine, Hx of multi-level C- and L- fusions, Hx of diffuse OA, Hx of seizure disorder,Hx of diabetes w/ neuropathy in arms;Ashworth grade 3 spasticity	Hx of cardiac arrest w/ flatline rhythm for ~2 minutes; Hx of parathyroid adenoma; Hx of RCC; Hx of granulomatous disease	MPS DN NPS OA DP MP
139	F	60	981	0.14	0.14	Chronic abdominal pain w/ bloating secondary to Crohn's disease and celiac sprue, Hx of prolapsed colon, with Hx of prior major abdominal surgeries; Hx of arthritic pain t/o back+neck	Cachexia, w/ loss of appetite; Hx of polio as a child in 1949; Hx of chronic ear pain w/ recurrent infections	MPS NPS OA VP

MPS, myofascial pain syndrome; DN, diabetic neuropathy; NPS, neuropathic pain syndrome; CPS, central pain syndrome; PP, phantom pain; SCI, spinal cord injury; FMS, fibromyalgia syndrome; OA, osteoarthritis; RA, rheumatoid arthritis; DP, discogenic back pain; HIV, HIV neuropathy; VP, visceral pain; MP, malignant pain.

Pt #	MC-specific chart notes	Notes about other medications: using, tried, failed, side-effects (if present)
1		
2	MMJ prn	
3	Max of five MJ cigarettes/day	Cannot tolerate opiate medications; also takes nortriptyline @ bedtime
4		Allergic to codeine, darvon, percocet, percodan, darvocet, oxycodone
5	MMJ sole source of pain relief; uses linaments and tinctures	Cannot tolerate opiate medications, which make him sick. Difficulty w/ muscle relaxers, which are too sedating
6		Limited tolerance to narcotics—extreme sedation, constipation, loss of appetite, intermittent vomiting; marinol—too sedating; cannot tolerate gabapentin
7	Using MJ successfully on a daily basis; pain from 8-9 to 2-3; needs only ~2-3 inhalations from a MJ cigarette to get pain relief	Has difficulty tolerating opioid medications
8		
9	Uses MJ daily	No other pain medications; allergies to morphine and aspirin
10	Vaporized cannabis use, 3-4x/week; tincture use	
11		Allergic to codeine; also uses temezepam, limited norco (as a back up to cannabis)
12	MMJ is occ. Supplemented with hydrocodone	Also uses intrathecal opiate pump in L-spine (morphine, then later dilaudid)
13		Also uses gabapentin, aspirin, and naproxen
14	MMJ 2x/week: "marijuana-it helps me more than any of the pills do with the exception of my hormone pill and piaquinel"	Also uses tramadol, percocet, celexa; allergy to codeine
15		Vicodin and tramadol cause itching, has a codeine allergy; has done a trial of propoxy
16		Also uses oxycodone celebrex, dilaudid, hydrocodone
17		Also uses oxycontin and oxycodone for breakthrough pain
18	"Pot/daily"	Also uses 50 mg ultram and norco; cannot tolerate codeine, makes him "hyperactive" and "keyed up"
19		Tried neurontin, tried trazadone
20	Medications, incl. MMJ, reduce the pain from 7-8 to 2-3; states that cannabis works considerably better than hydrocodone to tx pain	Also uses hydrocodone and tylenol (was advised to lower dose), IBP
21		Also uses baclofen, vicodin extra-strength, klonopin, trial of vioxx; has tried neurontin; refractory to other adjunctive analgesics
22	Uses 2oz of cannabis/month; approx. 2g smoked/day to relieve pain, although sometimes more; cannabis use tx's pain 7-8->2-3	Does not tolerate narcotics, which make her nauseated and worsen appetite; allergic to morphine+demerol; uses loperimide for nausea
23	"Feels satisfied with this pain control now"—September 13, 2007	Uses methadone; opiate medicine causes nausea
24		Poor tolerance to opioids . . . finds too sedating; also uses cymbalta, IBP; tramadol and flexaril—he didn't think they helped much; has received trigger pt injections
25		Since 1954, has tried four types of narcotics (T3-codeine, hydrocodone, oxycodone, tramadol); 5 triptans (imitrex tablet and injection, amerge, relpax, maxalt), migranal, depomedrol, marcaine nerve block, Excedrin
26		Also uses baclofen, tizanide, botox injections
27	Uses marijuana to control her pain and states that this is the only thing that really works effectively for her	Also uses celebrex
28		Also uses lyrica, oxycodone, trazadone and on lidoderm patches trial
29		Has been on narcotic meds, anti-inflammatories, muscle relaxers, etc; narcotics make him feel more "drugged" cf. w/ marijuana—cannot tolerate them; "has tried almost every pain medication I can imagine"

Pt #	MC-specific chart notes	Notes about other medications: using, tried, failed, side-effects (if present)
30		Uses morphine
31	Combination of low dose methadone with MMJ was working well for her; using MMJ successfully, but not covering all pain	Uses methadone, less lyrica because not good insurance coverage
32	successfully used MJ to treat pain	Cannot tolerate opiate medications—make her sick + destroys her appetite; occ. Tylenol, alleve is ineffective
33		Gabapentin and hydrocodone, but cannot tolerate opiates well
34		Norco
35	Marijuana frequently; works better than any Rx drug he has ever used	
36	Successfully used cannabis to treat his pain and he feels that works better than anything	Cannot tolerate opiate pain medications, which make him nauseated and causes hives; uses flexaril for back spasms
37	MJ daily to control pain	Feels "too euphoric" on morphine, doesn't want to get that "high" feeling; taking oxycodone and xanax
38	Marijuana daily with no SE; "only thing she is now currently using for pain"	Rarely Percocet
39	January 3, 2008: "getting fairly good pain control on his current medication regimen"	Also uses methadone and oxycodone
40	Marijuana prn	Also uses MS Contin, not well controlled with methadone, now off tylenol and neurontin
41	Reports that MJ gives her the best pain relief and she tolerates that much better	Also uses hydrocodone and baby aspirin
42	MJ really works better than anything to relieve the pain; Pot 3x week when pain is extreme. Varies	
43		
44	Marijuana as needed for pain	Uses methadone with side effects of "hot flashes, memory loss, irritability"; lyrica with SE of "jittery feeling" but "it's okay"; also on Imitrex, lidoderm patches
45		Allergy to Tylenol+codeine and aspirin; uses hydrocodone and migrazon
46	July 16, 2007: "His pain is under reasonable control." . . .	Oxycontin, morphine—some nausea associated with opiates
47		Takes hydrocodone, aspirin
48	"He has also used marijuana for pain relief and states that this works better than anything for him." "Helped him recover substantially . . . can ocassionally see blurry images, and he feels that his vision is coming back slowly since he as been using the MC."	Occasionally uses oxycodone, but has some allergies
49		Also uses alleve, hydrocodone, lidoderm patches
50		Aspirin allergy, vicodin not helping
51	"Wants to get off morphine and pain meds—only wants to be on marijuana"	Currently on morphine and methadone
52		Diclofenac led to GI problems, flexaril made her feel horrible, celebrex and lortab caused GI upset; has tried elavil and tramadol; on MS contin, IBP or tylenol, hydrocodone, and trial of lidoderm patches
53		Limited tolerance to oxycodone; cannot tolerate methadone—"makes me sick"; little relief from hydrocodone, no response from trazadone, trying percocet and trial of lidoderm patches
54		On methadone, previously on oxycontin, lidoderm patches trial, duragesic trial; cannot tolerate anti-inflammatories
55	Cannabis/10+ times a day not in last month and a half (May 16, 2006); no other med besides MMJ works as well	Some benefit w/ vicodin prn; no effect with muscle relaxers and other narcotics; very poor tolerance for opiates; hydrocodone does not work very well. "pain killers stopped working a long time ago."

Pt #	MC-specific chart notes	Notes about other medications: using, tried, failed, side-effects (if present)
56		Prior history of opiate abuse with premorbid Hx of methadone maintenance program; on neurontin, methadone, and oxycodone
57		Rash from morphine sulfate; uses oxycontin, oxycodone, hydrocodone
58		Uses amitriptyline
59	Medical cannabis weekly, 5-7x	Tried amitriptyline
60		Has taken percocert, norco, and now on oxycodone + oxycontin which makes him "feel like a junky"—he wants off the oxycontin
61	He is using MMJ to control most of his pain. He occ. Uses oxycodone	Poor tolerance to opiates which make him nauseous; vicodin allergy, oxycodone is helping; also uses IBP
62	Using MC and has had good results with that.	Using percocet; allergy with anaphylactic shock to darvon and vicodin; bad reaction with soma, neurontin, Imitrex
63	Does use marijuana to treat his pain	Limited success w/ opiate meds (higher doses cause him to feel sick, constipated); allergy to aspirin; on methadone and diazepam
64		Not successful relief with hydrocodone, limited tolerance to NSAIDS due to gastritis; uses MS contin, and intertrochanteric injection of both hips (bupiv + dexa)
65	MMJ continues to work well for her. It is controlling her pain. No residual SE (May 30, 2007)," Doing fairly well. Pain has decreased (December 11, 2007)	Trial of capsaicin cream—could not tolerate due to burning; has tried other modalities w/o effect
66		Uses norco, percocet, oxycodone
67	"She has been using cannabis in the past and has had excellent results with respect to her migraine headaches." Using <1/4 oz/week	Also uses neurontin
68		Also uses tramadol, elavil, maxalt, axert
69	MMJ is "safer"	Does not want to start with a more addictive opioid drug
70		Also uses norco
71	"He is getting good relief from MC to treat his chronic back pain." (April 30, 2008); "He is still getting very beneficial effect from the medicinal use of marijuana." (May 8, 2007); "He is currently using medical cannabis only for pain, and that is controlling his pain." (April 14, 2005). "I still use the herb. Almost every morning, I get up with strong nausea. I sometimes dream of back ache. The pain in my spine is directly behind the hunger center, and it gives such nausea I can't eat until I smoke. Even then it takes a while. Often I don't eat until around 3: or 4: in the afternoon. I don't smoke much. I don't enjoy being high. It does help with pain management, though." . . . "Medical herb . . . I don't know what I'd do without it right now, I think it's about the only good thing for my attitude." "Three small bowls a day right now of the herb, and that's a lot for me, somehow I survive until nightfall." (April 14, 2005) . . . "I don't know why. It isn't I don't feel the pain, I just don't care. I've found if I take in small doses, I avoid the mental weirdness and still get the pain and nausea help."	Considers oxycodone "powerful." narcotics make pt constipated; on valium, oxycodone, and diclofenac—"I am so 'stoned' I can't drive, wobble a lot on my bicycle, and still can't walk worth a damn." tried Voltoren and Celebrex as anti-inflam. Medrol caused rectal bleed
72		Uses oxycodone. Has hx of under-medicating w/ opioids
73		cannot tolerate opiates, eg, oxycontin. Uses lidoderm patches
74	"He admits to using marijuana to control his pain."	Also on Percocet
75	"Mr. X has been substantially disabled by his problems and states that MJ is the only thing that has helped him." (vaporizer user)	Poor tolerance to opiates which make him nauseated and itchy
76	"Admits to having already used MJ to treat the symptoms of MS, and he feels it works better than any Rx medication he has tried, in terms of controlling his pain, spasticity, and depression"	
77		Antidepressants have increased side effects and antiepileptics are too sedating

Pt #	MC-specific chart notes	Notes about other medications: using, tried, failed, side-effects (if present)
78	"She also uses MC and has been doing so for some time now. She uses it appropriately, and this has helped considerably w/pain."	Off oxycontin and using methadone, flexaril, trial of vioxx
79	Ideal candidate for MMJ as it may improve his appetite as well as limit opiate intake b/c incr. doses will not be safe due to lims w/ renal clearance . . . "Doing fairly well with current regimen. The majority of his pain is controlled with MC." (December 11, 2007); "He is getting good pain relief from his current medications." (May 21, 2008)	Also uses oxycodone and lorazepam
80	Cannabis successfully manages pain	Limited success w/ opiates . . . increasing doses are incapacitating and make him constipated. Past hx of morphine, hydromorphone, and methadone use
81	Uses MJ for pain relief (daily)	Not able to tolerate opiates, valium allergy
82		Occ. Using pain meds. Uses hydrocodone, IBP, methadone
83	"Has been using marijuana to relieve the pain, and this is the only thing that has worked for him"	Cannot tolerate opiate medicine—makes him nauseous to the point of throwing up; topomax is difficult for him to tolerate and very expensive by pt's acct.
84	Has used MJ in the past to occ. Tx. Pain (~1/month); difficulty w/night-time pain: MMJ recommended	Uses methadone, IBP, amitriptyline
85	Three bowls/day MMJ (September 28, 2006); 2x/day MMJ (August 7, 2006); 20 bowls/day (July 6, 2006)	Uses hydrocodone and baclofen
86		Uses methadone, dilaudid, hydromorphone. Opiate tolerant pt
87	"His pain is under reasonably good control"	Cannot tolerate: codeine+demerol, chronic narcotic medication makes him "sick"; poor outcomes with antidepressants and neurontin; some relief with percocet but cannot tolerate any stronger
88	No other medications aside from MC	Pt denied using hydrocodone w/tylenol as a pain control option
89	"She has used this recreationally and had good success w.r.t. pain relief and inquiring about using it officially as a medical agent."	Difficulty tolerating narcotics; amitriptyline @ night for LBP, effexor
90	Says MJ helps him to eat and breathe; uses MJ 3x day	
91	"States quite forthrightly that he has used marijuana to treat his pain, and he gets better relief from that than most other medications." (September 25, 2007)	Addiction to higher dose narcotics-pain specialists referral to get him off narcotics; uses oxycodone, APAP, carisoprodol (for muscle spasm), IBP
92		Uses methadone, which causes sleepiness and dilaudid, which causes vomiting/nausea
93	Approx 1 oz/week of MMJ: "relieves pain quite well"	"Not tolerating narcotic pain meds well, and has had poor response to other anti-inflammatories and muscle relaxants; tries to avoid vicodin, but occ. Uses for pain; also uses diazepam
94		Trigger pt injections in lower lumbar region; uses methadone and oxycodone
95	Uses MJ three times/week to control pain and inflammation	
96	It would appear that he is using the cannabis appropriately (April 23, 2008); satisf. Control from his current pain regimen (April 24, 2007); has used MJ in the past with success. Uses predominantly @ night. 1-2 cigarettes/day (October 26, 2006)	Opiate intolerance—makes him sick; has used OTC alleve with little success; anti-epileptics make him very sedated
97		Uses hydrocodone and lexapro
98		Uses oxycodone, alprazolam, prozac, percocet, gabapentin; morphine allergy
99		Has failed gabapentin, tegretol, elavil, percocet, celebrex, and others; also tried implantable nerve stimulator—no effect (November 7, 2006); on oxycodone/acetominphen, methadone, nortriptyline, Percocet
100	Pain is 5-7/10, but with Cannabis, 2-3/10 (March 27, 2007); getting satisfactory pain relief from MMJ; Cannabis allows him to sleep (April 10, 2007); First used cannabis @ 8 yrs old: "an elder described its use and benefits" uses 4x day or prn. Cannabis works better than prescribed medicines; other reasons for cannabis use: stress reduction; reports that whole family uses it	Cannot tolerate opiate medications, which for the most part make him nauseated; marinol did not agree w/ stomach; LSD, psilocybin, peyote—indicated that they for spiritual use—used as often as needed

Pt #	MC-specific chart notes	Notes about other medications: using, tried, failed, side-effects (if present)
101	"He has been using marijuana on his own, as he feels it gives him the best pain relief of anything that he has used." 2-3 inhalations on a MJ cigarette 2-3[×]/day,and this improves his pain levels drastically w/o incapacitating him	MS Contin
102		Poor response to narcotics, TCA's; has tried relafen, flexaril, lodine XL, tylenol; on: vicodin, cataflam
103		Narcotics make him sick; has used steroid injections
104		On hydrocodone, IBP
105	Cannabis for breakthrough pain (doing well) (July 20, 2006); 1/4 oz MC/day, occ. More (October 4, 2004)	On methadone; no success on anti-epileptics and antidepressants; demerol allergy
106	"He has used MJ in the past and it provided great pain relief.", 1-2 MJ cigarettes/day "moderate" use acc'ding to pt. May 25, 2007; "With the institution of marijuana, he has noted a 60-70 percent decrease in his muscle spasms." (April 23, 2004)	Persistent nausea from opioid medication, but takes methadone + morphone sulfate + citalopram + neurontin (May 25, 2007)
107		Cannot tolerate codeine; failed vioxx, percocet, amitriptyline, neurontin, tramadol
108		Uses oxycontin, oxycodone, percocet. Has tried MS, methadone, dilaudid, tramadol, darvocet, fentanyl. Allergic to morphine and Demerol
109	"He does use marijuana for pain control. He states this is the only thing that has ever helped him." Only thing used for pain control is marijuana	He has very poor tolerance to opiates. Failed numerous analgesics.
110	Does use MJ to control the pain and feels that this has more than satisfactorily controlled her pain; uses 1-2 MJ cigarettes, primarily in the evening-September 18, 2007; cannabinoids more effective and safer than opiates in this setting	Allergies to morphine, demerol, codeine
111	MC has helped with his neuropathic pain as well as his appetite	Allergy to morphine or Demerol
112	only uses marijuana . . . 2 oz/month (smoked)	
113	"Freely admits to using marijuana to control the pain although he has done this on a recreational/informal basis without specific healthcare provider authorization."	Uses methadone, aware of risks of opiates—wishes to reduce
114	Pt has used mj for pain control, "and he gets much better relief from that than opioids."; "as needed"	Uses neurontin, tramadol, aspirin; "He does not tolerate opiate medication very well as it causes him to be too spaced out and nauseous."
115	Has used MMJ successfully for pain relief	Very poor tolerance to opiates; takes aspirin. "A number of medications have previously been tried."
116		On methadone, lyrica, hydrocodone for breakthrough pain
117	"Pot daily"	Allergy to aspirin and other pain remedies; @ one time, was on methadone in fairly high doses—"He does not want narcotic medications."
118	With respect to pain control, she states she has used cannabis with good effect in the past	She reports poor tolerance to opioid med and severe rxns to other meds incl. antidepressants; uses IBP
119		Uses ultram
120	MMJ daily; pt agreed to use less hydrocodone with MMJ	Does not tolerate narcotics due to N/V, and little success w/ other meds (eg, neurontin); uses hydrocodone and muscle relaxers
121		uses hydrocodone, IBP, and trigger pt injections
122	"She uses MJ on a daily basis to control her pain . . . She had done this for years and states it is the only thing that really relieves her pain."	Uses MS Contin, oxycodone, but she reports relative intolerance to opiates—incr. dose->nausea; cannot tolerate anti-inflammatories and flexaril; marinol-ineffective

Pt #	MC-specific chart notes	Notes about other medications: using, tried, failed, side-effects (if present)
123		Hx of failed pain meds mgmt: celebrex, vicodin; celebrex is "upsetting her stomach" (February 12, 2007); allergy to muscle relaxants, anti-inflammatories, aspirin and other pain remedies; poor response to opiate meds, which make her nauseated; most adjunctive medications for pain have also been poorly tolerated; some help from Lexapro (used as an antidepressant), excedrin-migraine; and florinal-headache
124	"MC has helped him substantially with pain" (November 6, 2007); "occ. Uses mj to tx pain and that is the only thing that relieves"; "uses pot when I can't sleep with the pain" (December 12, 2006)	OTC anti-inflammatories + tylenol + intermittent MMJ –> not controlling pain; little success with most analgesics and anti-inflammatories; given vicodin Rx
125		Uses gabapentin, naproxen, oxycodone
126	"States openly that he has used marijuana in the past and it has helped his pain substantially. Tolerates it much better than opiates and his use of marijuana has substantially decreased his dependence on opiates"	Previously was taking oxycontin 40-80mg 2x/day; since using MMJ, he is now completely off oxycontin and is only using vicodin prn
127	"He has been using MJ to control his pain and he feels this has worked better than anything he has used." Daily use.' "no unwanted side effects; no comparison with Rx meds; use lessens need for EtOH(past heavy use)	Pt is Rx'd hydrocodone but is not certain if he will fill the Rx; pt has tried: oxycontin, oxycodone, aspirin, IBP, tylenol, tylenol/codeine, percodan, percocet, vicodin
128		Using oxycodone as needed for breakthrough pain, MS contin
129		uses hydrocodone, celebrex for antinflammation
130	Has used MJ with significant success for headache relief, nausea relief, and incr. appetite. Pt coached on MJ dosing. 2-4 inhalations than wait and titrate; Using MMJ to control headaches + upper back + neck pain" (September 13, 2007); "has been using MMJ very appropriately"; "with respect to his neurological functioning, that appears to be stable. He has had no headaches, no nausea, or vomiting"	Little response to amitriptyline, vicodin, tylenol, marinol, and others for headaches (such as inderal, anti-inflammatories, and IBP)
131		Uses norco, which causes drowsiness and loss of appetite; codeine allergy; previously used ultram and neurontin
132		Occ. Uses opiate medication such as hydrocodone, but he does not like to do this, because it makes him sick and constipated; uses IBP—May 20, 2008
133	He is using MC to control his pain with good luck with that. He also uses oxycodone and oxyContin, but he tries to limit this. (May 20, 2008); "Cannabis daily for pain control" (April 10, 2007)	Uses oxycodone and oxyContin, which cause SE's of constipation and nausea; uses celebrex and cortisone injections
134	Uses marijuana, which she states works better than anything for pain	Hydrocodone makes her feel somewhat ill; uses tramadol, clonazepam
135	Pt has used MJ in the past to control her nausea and headaches (November 30, 2006)	Cannot tolerate opiates, plus the SE of opiates, including constipation and bowel hypomotility would be contraindicated in this setting; Allergy to morphine and demerol; taking methadone, oxycodone, xanax
136	"He has used recreational marijuana in the past, and states this is the only thing that has actually helped relieve his pain + headaches." (July 15, 2002) "reasonably good relief from the MC" (November 18, 2002)	Was taking too much tylenol, doctor concerned; constipation – SE w/ oxycodone; cannot tolerate vicodin; narcotics give worse headaches; uses oxycodone, percocet and occ. Lidoderm patch use
137		Uses norco, neurontin, oxycodone
138		Uses morphine, oxycodone, lidocaine, trigger pt injections, lidoderm patches, diazepam; cannot tolerate Duragesic patches—rash; tried dilaudid
139	Has been using marijuana to treat her pain	Opiate intolerance—cause her nausea/vomiting and bowel obstruction; wants to avoid unnatural/artificial medications; codeine allergy

Pt #	Notes about major access hurdles
7	May 22, 2008: Department of Corrections (DOC) process was disallowing his MMJ use
12	September 21, 2006: "big concern for him is access to MMJ . . . can barely afford what the Green Cross Coop asks for their medication"
18	Had MMJ authorization from Oregon, but not accepted in WA
22	Involved in some type of legal altercation where she was arrested for possession of marijuana. Was authorized by a previous MD who moved. "She was a good candidate for MMJ at time of arrest."
24	Partner doctor in practice would not authorize
26	came from IL for Doc's opinion; will need to stay in WA for MMJ exp. trial
29	Has had some issues with his employer regarding MMJ; and a previous physician who would not authorize
30	Pt has Hx of incarceration and forcible removal from Canadian ER with urinary catheter in place stemming from MC charges
36	March 26, 2008: referral by atty b/c pt is facing major legal problems due to MMJ growing and use
37	previous docs referred to his marijuana use as illicit
48	February 11, 2008: "went to court. They took his marijuana card. He need another one."
50	Another MD wrote in her social history: she abstained from using marijuana since October 2003 (May 17, 2006)
51	MD at Hem/Onc service unwilling to provide MMJ; referred for "MC consult"
53	Pt wanted to take MMJ to NV, but learned she was only covered in WA
55	Pt had to go to jail for marijuana-related charges. Could not use MMJ-so used oxycontin (September 20, 2007) and wants off oxycodone (November 6, 2007)
56	Use limited by cost of MMJ
57	Referred by non-practicing cannabinoid medicine specialist who was unwilling to recommend MMJ
61	"He does state that he cannot afford the MC, which is somewhat expensive even when obtained from the Green Cross Co-op. Marinol too expensive
62	"She is having increasing difficulty obtaining MMJ." June 15, 2006
63	Pt referred by attorney b/c pt was being forced by DOC to stop MMJ use or face re-incarceration
69	Previous MD did not authorize ("we talked about MC. At the end of the appt. nothing was settled on.")
71	Seeking authorization for "hemp therapy." "It's funny, so many doctors recommended it before it was legal, and now a helpful doctor is hard to find. I've been told it should be only for terminal patients, but unless I find surgical relief, it goes with me to my grave and it feels like it's killing me. I wouldn't wish this on Saddam Hussien." (Pt statement shared with Carter and referring doctor). Another DO doc wrote: "He recently requested for me to give him a prescription for MC, however, I am not inclined to do so mainly because the D.O. board is quite conservative and tends to frown on that very much. I know that Greg will sometimes do this . . ." (March 7, 2003)—note was sent to another MD who said 'no' as well. (March 23, 2003)
75	Referred by VA psychiatrist not only for MMJ eval but also NO Referral because VA would not refer out; mention made of remote past history of MJ abuse (March 1, 2006)
76	Referred by major city hospital neurologist for MMJ eval—"I have advised them, unfortunately, I cannot prescribe MC for them." (September 10, 2007)
81	Wants Rx for marinol, trying to get DL back
84	Pt was referred to ARNP for pain mgmt. Then his care was transferred to Dr. Carter when urine drug screen showed +methadone, +cannabis
85	Traveled out to Hawaii and had trouble accessing MMJ; had legal problems related to MC use/cultivation–Charged pt's mother with the following "crimes" "against the peace and dignity of the State of WA": "Manufacture of a controlled substance" (max penalty: 5yrs in prison +$10,000 fine), "Unlawful use of drug paraphernalia to grow a controlled substance" (max penalty-90 days in jail +$1000 fine); previous MD believed psychosis in pt was due to large amount of MJ use; wanted pt off MMJ completely (July 6, 2006)
87	Referred by DO for MMJ discussion
88	Referral from an attorney in some kind of MJ-related case
91	Wanted to consider MMJ only after Labor and Industries (L&I) claim was closed
98	Not able to use much b/c wife who is in the military worries due to fed. Laws

Pt #	Notes about major access hurdles
99	Had some difficulties getting cannabinoid medicine through the co-ops, so he has had limited ability to use the medicine
100	"Difficulty obtaining MMJ due to financial reasons" (April 10, 2007); Trial on June 4, 2007—MMJ related, it seems; pt reports: "I fear our government"; previous MMJ recommending doctor noted: "HIPPY"-Appearance w/ "Dread-Locks" as an objective finding
101	"He is quite adamant noting that he has never been a recreational marijuana user and is adamantly against recreational drug use. He stated a number of times during our visit that he is embarrassed to inquire about this."
103	Another doc wrote: "He is possibly interested in MC as a means to be comfortable in the evenings, but again he is not real excited by anything that is going to alter his sensorium." (November 4, 2007)
105	Arrested several months ago for possession of cannabis, despite medical authorization –> referral by atty
106	Another doctor wrote: "I am aware of this particular act and unfortunate I do not participate in the MC program." (April 25, 2007)
108	All prepped to use cannabis (found right medical source) but could not avail as the liver transplant service said that he was not allowed to use MC to be kept on the list
111	Given Rx for marinol if he travels out of state and cannot take his natural marijuana. I did state, however, that I do not feel Marinol is a true substitute for natural marijuana, as it has only one cannabinoid whereas the natural plant has over 60-70 different cannabinoids
112	Was Rx'd for marinol for a job-related potential urine test
115	Vietnam Vet seeking MMJ authorization; had some MMJ-related legal problems
118	Chart history form filled out by pt says she "quit" marijuana on May 17, 2006 . . . no reason given
125	Was receiving VA care with MMJ auth. Does not occur; referred by another patient of Dr. Carter
127	Pt feels unsafe in his community due to law enforcement; pt was authorized for MMJ use previously from low quality bot. cb. Med specialist. Seeking re-authorization
129	Lives in a very rural setting
130	(February 1, 2006): internal medicine MD: "He continues to have persistent headache and is here today to talk about MC. He tried amitryptaline, inderal, anti-inflammatories, and vicodin in the past. Nothing really worked. Only wearing L eye patch and smoking marijuana help. He wants to know if MC could be prescribed." MMJ request denied. And Doc gave Rx for MARINOL 2.5 mg, #60, no refills. October 19, 2006: "Could not afford MARINOL (and state wouldn't pay) ($400 for 1 mo. supply)
132	Has difficulty obtaining good amounts of MC. Is trying to start a grow in his house b/c he cannot afford the prices at the co-ops-May 20, 2008
133	Told by another MD on October 26, 2006: "He does need to quit using marijuana for safe general anesthesia."
136	Previous DO doctor says MC is not appropriate and Dr. "is not comfortable prescribing it today." Vicodin instead (January 25, 2002); pt continues to request MMJ treatment from DO, but is refused (February 1, 2002)
137	Turned down for Social security disability; unclear why; "pt reports that he occasionally uses marijuana, stating that it calms him" said one psychiatrist—however, note also states that his depression problems are exacerbated by "current substance use", not distinguishing between documented MJ + EtOH use
139	Past legal problems related to MMJ
51 pts total	