

# Prescription Opioid Abuse in the Emergency Department

*Barth L. Wilsey, Scott M. Fishman  
and Christine Ogden*

## Background

The last decade has witnessed a dramatic shift in the perception of the safety of opioid prescribing. An initial analysis by the Pain and Policy Studies Group at the University of Wisconsin Medical School<sup>1</sup> concluded that the use of opioids in the chronic pain population carried a low risk of abuse potential. They had studied the national utilization of five opioid analgesics used to treat severe pain along with a retrospective chart review of ED visits associated with abusive behaviors. From 1990 to 1996, there were increases in medical use of morphine (+59%), fentanyl (+1168%), oxycodone (+23%), and hydromorphone (+19%), and a decrease in the medical use of meperidine (-35%). During the same period, the total number of hospital emergency department admissions (resulting from drug abuse) per year due to opioid analgesics increased from 32,430 to 34,563 (6.6%), but the proportion of admissions for opioid abuse relative to total mentions for drug abuse decreased from 5.1% to 3.8%. The authors concluded that the trend of increasing medical use of opioid analgesics to treat pain did not appear to contribute to an increase in opioid analgesic abuse. But a subsequent epidemiologic study, the 2002 National Survey on Drug Use and Health,<sup>2</sup> revealed that the number of people using prescription opioids for non-medical purposes (defined as use of prescription-type drugs not prescribed for the survey respondent by a physician or used only for the experience or psychomimetic feeling) increased significantly after 1996, the final year of data collection of the aforementioned Pain and Policy Studies Group report (Fig 1). In fact, by 2002, the prevalence of prescription opioid abuse surpassed that of cocaine and heroin and became second only to marijuana in terms of past year illicit drug dependence or abuse (Fig 2).

In the recent past, high-visibility press coverage of prescription opioid addiction has cast a bright light on the complexity of prescribing opioids. By the spring of 2004, federal agencies including the Food and Drug Administration (FDA), the Drug Enforcement Administration (DEA) and the White House Office of National Drug Policy launched coordinated prescription drug abuse prevention initiatives that emphasized ed-

---

**Barth L. Wilsey, M.D.**, is a Joint Appointee of the Sacramento Veterans Administration and the University of California, Davis and is Director of the VANCHCS/UCD Analgesic Research Center. **Scott M. Fishman, Ph.D.**, is Chief of the Division of Pain Medicine and Professor of Anesthesiology and Pain Medicine at the University of California, Davis. Dr. Fishman is also President of the American Academy of Pain Medicine. **Christine Ogden, B.S.**, was previously a research associate in the Department of Anesthesiology and Pain Medicine at the University of California, Davis. She is now a first year medical student at the University of California, Davis.

ucating physicians about how to properly assess and monitor patients on long-term opioids.<sup>3</sup> At the same time, it was acknowledged that patient care should not be undermined as law enforcement officials act to curb illicit activities.<sup>4</sup> One area of concern has been opioid prescribing and drug-seeking in the ED. In order to avoid inappropriate prescribing, ED physicians must be able to confidently assess the potential of opioid misuse. But these physicians often lack the skill or the time for a thorough assessment. There is also a lack of uniformity in the approach to chronic pain patients by ED physicians. In one study, judgments regarding prescribing practices were highly variable; under an identical scenario 10% of physicians were against prescribing opioids and 10% were likely to prescribe opioids.<sup>5</sup> Furthermore, the same clinical information, such as a patient requesting a strong analgesic, changed the willingness to prescribe opioids in opposite directions for different physicians. Obviously, the role of opioid prescribing in the ED should be on a more logical footing.

The difficulties involved in deciphering the reasonableness of a particular patient's request for opioids in the ED are compounded by the high prevalence of addiction in these patients. Although data is far from conclusive, there is concern that a considerable number of patients presenting to emergency rooms, as much as half in some settings, have a history of substance abuse.<sup>6</sup> As a history of addiction has been associated with prescription opioid abuse,<sup>7</sup> aberrant behaviors among chronic pain patients seeking opioids in the ED should not be an unexpected phenomenon. But there is also the concern that patients with chronic pain may receive

inadequate analgesia as a result of prejudicial treatment deriving from guilt by association. Differentiating between true addiction and the patient whose analgesic requirements are not being met (e.g., pseudoaddiction) is usually difficult, particularly in the constrained confines of a single ED encounter. Nonetheless, some patients are denied treatment for pain because of the fear that their complaints are "not real." ED physicians may be concerned that a patient exhibits drug-seeking behavior whereby amplification or falsification of a somatic complaint is offered by a patient in order to receive a prescription for opioids. Alternatively, an ED physician may encounter a patient who reports having allergies to multiple non-narcotic medications. Request for a specific type of pain medication may also raise concerns about possible addiction. A few patients may engage in malingering or another form of deception for secondary gain, complaining of symptoms that are impossible to prove or refute. As the pain of a toothache, migraine headache, back pain, or an abdominal complaint is not directly measurable; there is always subjectivity in the complaint of chronic pain. Certain scenarios may increase the degree of suspicion; a patient may present with a chronic pain problem that is being treated with opioids by their primary care doctor or specialist who is reported to be unavailable to refill the medication. Patients may present stating they are without the opioids that they take regularly and perhaps are now visiting a relative in a distant city and need a prescription on an emergency basis. Consultation with their primary care physician may reveal a history of self-escalation of med-

Figure 1

**Annual Numbers (in Millions) of New Nonmedical Users of Pain Relievers Aged 12 or Older: 1970-2001** from <<http://www.oas.samhsa.gov/2k4/pain/pain.htm>>

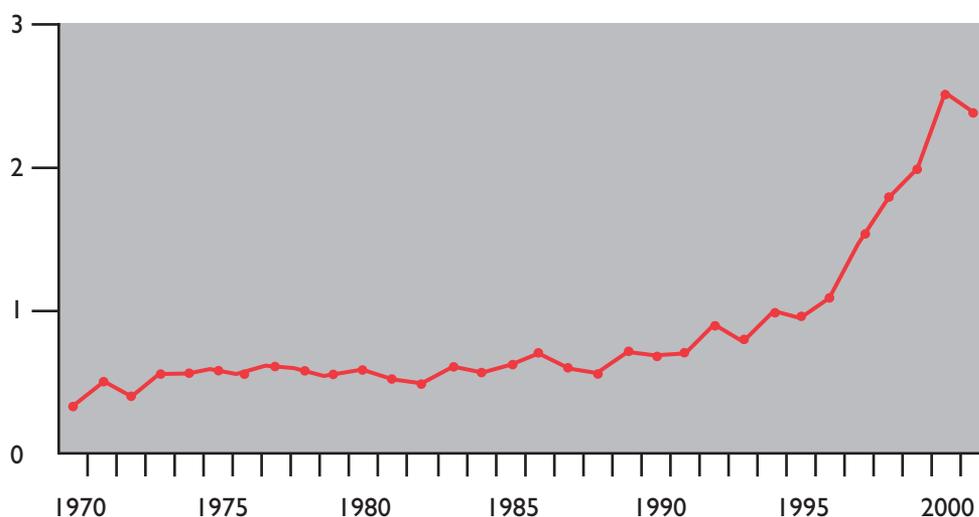
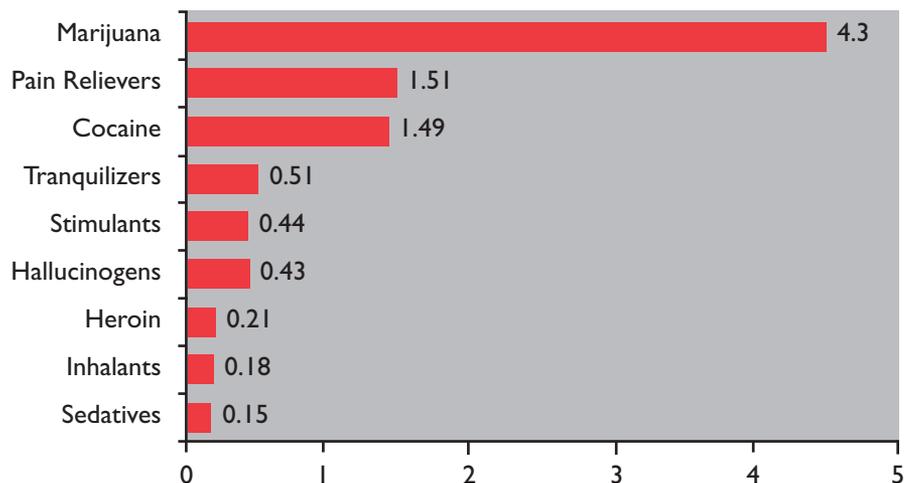


Figure 2

**Estimated Number (in Millions) of Persons Aged 12 or Older with Past Year Illicit Drug Dependence or Abuse, by Drug:** <<http://www.oas.samhsa.gov/2k4/pain/pain.htm>>



ications, calling for early refills secondary to lost or stolen prescriptions, multiple telephone calls, and/or visitations without an appointment to obtain medications. Although some emergency physicians may consider themselves adept in the identification of patients with abusive tendencies, this is not always possible. While the evidence may seem self-evident, proving allegations of misuse is usually impossible in a single encounter. At the same time, it is becoming increasingly difficult to defend the practice of denying opioids because of suspicions that pain is inexplicable or that the patient is a “drug-seeker.”

There is surprisingly little data on the exact prevalence of prescription opioid abuse in patients with chronic pain seeking care in the ED. Some have referred to the “distortion perpetrated by a small number of patients that frequent EDs requesting opioids for illicit purposes.”<sup>8</sup> However, literature on the exact pervasiveness of prescription drug abuse in this setting is not available. This is in direct contrast to alcohol and illicit drug abuse, which has been studied extensively in this population.<sup>9</sup> The lack of data on this topic is likely related to the necessity of deciphering subtle signs of prescription opioid abuse over multiple encounters. Previous efforts<sup>10</sup> to characterize this type of conduct have enumerated several telltale themes (Table 1). Obviously, an average ED physician is not going to be able to make this diagnosis from this inventory as they are not going to witness repeated calls or have the occasion to observe a patient returning to the office because they have run out of medications. But screening tools are under development which may prove to be useful in the ED as a surrogate measure to predict the propensity for prescription opioid abuse in a given patient.

### Screening for Prescription Opioid Abuse

An early method of categorizing aberrant behaviors in patients on a chronic opioid regimen was developed by Chabal, et al.,<sup>11</sup> Working in a pain clinic in a Veterans Administration facility, the authors developed a prescription abuse checklist (Table 2). Patients with chronic pain meeting three out of five of these criteria were arbitrarily classified as opioid abusers. Although notable for its relative simplicity (e.g., the criteria could be applied during normal clinic interactions), this method is not without its drawbacks. Most problematic is the fact that some patients may manifest prescription opioid abuse but not have observable aberrant behaviors. This was discovered in a retrospective review of charts in a pain clinic where 21% of seemingly uncomplicated pain patients taking opioids were shown to have urine toxicology results that were suspicious for abuse by virtue of the fact that illicit drugs were found to be present in the samples tested.<sup>12</sup> It is therefore thought that behavioral examinations must be supplemented with toxicology screening in order to detect the true incidence of prescription drug abuse. The combination of these methodologies is, for this present time, probably the “gold standard” upon which other methods, i.e. screening devices, should be compared. But there are other patients who manifest neither behavioral nor toxicologic abnormalities, yet still abuse medications. Abusive behaviors such as selling diverted medications, and/or crushing oral medications and injecting them, are far less likely to be discernable.

Shortly after Chabal, et al., reported their findings, Compton and her psychiatric colleagues<sup>13</sup> reported upon the results of a pilot assessment tool called the Prescription Drug Use Questionnaire. Acting as psy-

chiatry liaison consultants, the authors screened referrals with suspected abusive behaviors. From this data, the authors developed a list of forty-two items, which seemed to be reasonable correlates of prescription opioid abuse. The authors then administered the assessment as a structured interview over approximately twenty minutes. This instrument evaluates the pain condition, opioid use patterns, social and family factors, family history of pain and substance abuse syndromes, patient history of substance abuse, and psychiatric history. Responses to these items by subjects diagnosed as being addicted by an addiction medicine specialist differed significantly from those of non-addicted patients. Those with a substance use disorder were significantly more likely to save or hoard unused medications, to use analgesics to relieve symptoms other than pain (i.e., insomnia, anxiety, depression), to supplement analgesics with alcohol or other psychoactive drugs, and to report having a practitioner previously limit or terminate care due to concerns about the subject's analgesic use. Although not meeting statistical significance, addicted patients had a pattern of losing prescriptions/medications, had forged a prescription, or had obtained opioids from street sources. To identify a manageable number of items that best predicted the presence of addictive disease, logistic regression analysis was performed. Positive responses to three items correctly classified 93% of subjects as having an addiction. The three questions are presented in Table 3. These personally sensitive questions have not been utilized widely because it would be unlikely that someone would answer affirmatively in a typical clinical setting. Less offensive queries that correlate with prescription opioid abuse would possibly derive more information.

Recently, there have been attempts to discover methods of eliciting accurate information from respondents relating to opioid abuse potential. Adams and colleagues<sup>14</sup> developed a twenty-six item instrument called the Pain Medication Questionnaire (PMQ). This scale was notable for its readability. It was designed to be filled out by the patient and scored by the clinician to determine the relative risk of future prescription opioid abuse. Butler, et al.,<sup>15</sup> have reported on their Screener and Opioid Assessment for Patients with Pain (SOAPP). This instrument is also a paper and pencil questionnaire intended to facilitate treatment planning for chronic pain patients being considered for long-term opioid treatment. It has twenty-four items designed to serve as a test for the potential of a patient to develop abusive behaviors. These latter two studies demonstrate the feasibility of employing a self-report instrument completed by a respondent with items somewhat similar to those applied in the structured interviews of Compton.<sup>16</sup> But unlike the latter, the items

Table 1

**Prescription Opioid Abuse<sup>48</sup>**

1. Selling prescription drugs
2. Forging prescription drugs
3. Stealing drugs
4. Injecting oral formulations
5. Obtaining prescription drugs from nonmedical sources
6. Concurrently abusing alcohol or other illicit drugs with prescription drugs
7. Escalating doses on multiple occasions or otherwise failing to comply with the prescribed regimen despite warnings
8. "Losing" prescribed medication on multiple occasions
9. Repeatedly seeking prescriptions from other clinicians or from emergency rooms without informing the original prescribing physician
10. Giving evidence of a deterioration in the ability to function (at work, in the family, or socially) that appears to be related to drug use

Table 2

**Prescription Opioid Abuse in an Office Practice<sup>49</sup>**

1. Excessive focus on opiate issues during clinic visits
2. A pattern of early refills or dose escalation in the absence of clinical change
3. Multiple phone calls or visits about opiate prescriptions
4. A pattern of prescription problems
5. Supplemental sources of opiates

Table 3

**Three Questions from Prescription Drug Use Questionnaire (PDUQ)<sup>50</sup>**

1. Does the patient believe that he/she is addicted to opioid analgesics?
2. Is there a pattern of the patient increasing prescribed analgesic dose or frequency?
3. Does the patient have preferences for specific analgesics and/or routes of administration (i.e., IV, IM routes over oral)?

would appear to be less objectionable to answer. In addition to these screening surveys, there is also a new tool for ongoing assessment. Passik, et al.,<sup>17</sup> have described their Pain Assessment and Documentation Tool (PADT). This tool captures the relevant outcomes for pain management: analgesia, activities of daily living, adverse events, and aberrant drug-taking behaviors. The mnemonic “4 A’s” remind clinicians that pain therapy can be considered successful only if it provides pain relief (analgesia) and stabilizes or improves psychosocial functioning (activities of daily living) without compromising important areas of functioning (adverse events) or triggering abuse (aberrant drug-taking behaviors).

The major drawback to the clinical utilization of any of the aforementioned instruments in the ED is the length of administration; each assessment takes several minutes to complete. Undoubtedly, differences in the length of a screening procedure weigh heavily upon the burden of clinicians and patients. Others have suggested abbreviated questionnaires. For instance, officials at the National Institute of Drug Abuse (NIDA) recommended using a modification of the CAGE Questionnaire that is commonly used with alcoholism.<sup>18</sup> Adapting this short questionnaire from Ewing,<sup>19</sup> they substituted “prescription drugs” for the word “alcohol” (Table 4). Although a tempting use of a validated screening instrument that is familiar to most ED practitioners, the validity of the revised questionnaire has not been established. Another abbreviated questionnaire was suggested by the work of Michna, et al.,<sup>20</sup> who found that chronic pain patients attending a pain clinic had certain characteristic that predicted subsequent aberrant behavior. Patients who admitted to a family history of substance abuse, a history of legal problems, and drug or alcohol abuse were prone to demonstrate more aberrant opioid-related behaviors. Such behaviors include a higher incidence of lost or stolen prescriptions and the presence of illicit substances in their urine. This study demonstrated that questions about abuse history and legal problems can be useful in predicting aberrant drug-related behavior with opioid use in persons with chronic pain of non-malignant origin. The three questions employed are presented in Table 5. If a subject answered two or more of these questions affirmatively, they were considered to be at high risk for prescription opioid abuse. At present, this is probably the most useful means for an ED physician to screen for prescription opioid abuse because it involves querying about a less offensive issue such as a family member’s problems with addiction. Given human nature, a patient is more likely to admit that someone else is abusing or has abused drugs or alcohol than they might be to admit their own frailties. Indirect

Table 4

#### **CAGE<sup>51</sup> Modified for Prescription Opioid Abuse**

1. Have you ever felt the need to **C**ut down on your use of prescription drugs?
2. Have you ever felt **A**nnoyed by remarks your friends or loved ones made about your use of prescription drugs?
3. Have you ever felt **G**uilty or remorseful about your use of prescription drugs?
4. Have you **E**ver used prescription drugs as a way to “get going” or to “calm down”?

Table 5

#### **Abuse History and Legal Problems<sup>52</sup>**

1. Is there a history of alcohol or substance abuse in your family, even among your grandparents, aunts, or uncles?
2. Have you ever had a problem with drugs or alcohol or attended Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) meetings?
3. Have you ever had any legal problems or been charged with driving while intoxicated (DWI) or driving under the influence (DUI)?

and somewhat subtle questioning of this sort is likely to uncover a clue that the patient may have a higher-than-normal potential for prescription opioid abuse. Similarly, the question about having a problem with drugs or alcohol or attendance at Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) has a minimum bias as does the remaining question concerning driving under the influence or having legal problems.

Noting that problems with illicit drugs or alcohol are important predictors of prescription opioid abuse,<sup>21</sup> ED physicians may employ other methods to suspect drug or alcohol misuse. Findings on physical examination include an assessment for the signs associated with addiction including tremor, the odor of alcohol on the patient’s breath, an enlarged, tender liver, nasal irritation (suggestive of cocaine inhalation), conjunctival irritation (suggestive of exposure to marijuana smoke), labile blood pressure, tachycardia (suggestive of alcohol withdrawal), and/or “aftershave/mouthwash” syndrome (masking the odor of alcohol), and the odor of marijuana on clothing.<sup>22</sup> Obviously, the presence or absence of any one of these findings is not diagnostic for drug dependence. Likewise, no laboratory findings exist that are specific for this diagnosis. A urine toxicology screen

is the perhaps the best examination to confirm involvement with illicit drugs (amphetamines, barbiturates, benzodiazepines, cocaine, opiates, phencyclidine (PCP), and marijuana). But laboratory procedures vary greatly and false positive urine screens are prevalent. For instance, the pain patient may be positive for opioids as a result of medication that they have received from legitimate sources or negative even though they are taking prescribed dosages due to variable thresholds for certain laboratories. In many states, patients in pain may use marijuana for medicinal purposes, although the formidable debate on medical marijuana is probably now over (for the time being) in light of the 2005 U.S. Supreme Court ruling<sup>23</sup> that now essentially bans its use by patients irrespective of state law. Other false positives include positive testing for opioids due to recent ingestion of poppy seeds. Immunoassays are the most commonly used initial screening method and are either laboratory-based or point-of-collection tests. As in pain clinics, the optimal identification of drug abuse in the ED requires both the use of a history and a drug screen.<sup>24</sup>

Since there is no valid characteristic symptom or sign, lab nor screening test that is even marginally capable of differentiating patients in pain who are using their complaint for inappropriate purposes, ED clinicians may perceive these patients as a group that is met with disbelief. Such patients become lumped together, as cases that ED clinicians may be hesitant to treat. Thus, it remains an imperative to discover a simple means of differentiating “legitimate” pain patients from abusers. In the interim, it is important for the ED physician to maintain a compassionate approach to each of these patients and to offer them a trusting environment unless mitigating circumstances develop (i.e., the patient is discovered to have procured prescription opioids from multiple providers).

### **Treating the Patient with Concurrent Addiction and Chronic Pain**

For patients who are perceived as being at high risk of having prescription opioid abuse because of concurrent substance abuse, a variety of strategies may be contemplated. Prior to the institution of chronic pain management with abusible medications, it is advisable to consult with either a pain management or addiction specialist. The rationale behind this recommendation is that such patients have resource utilization needs that are typically higher than usual, exceeding the type and extent available in non-specialty programs. Such patients may need a carefully developed and delivered written opioid agreement so they are made aware of the

permissible and unacceptable behaviors while on prescription opioids. Moreover, such patients will require a treatment milieu that supports sobriety and has the ability to monitor for the behavioral dysfunction in all domains of life that is the hallmark of addiction.

Despite the best intentions, sometimes it will be necessary for a ED physician to refuse to provide opioids to a patient who has chronic pain combined with an addiction problem. Due to insurance issues and the long waiting period to be seen by some specialty clinics, it may be the path of least resistance for this patient to fall into a cycle of returning to the ED for their pain medications/addiction, offering no real solution to either the pain problem nor their substance abuse. To avoid this

---

**A contract is often used to supplement the introduction of important concepts required for safe opioid prescribing to patients beyond that which the busy office physician can accomplish during a visit.**

---

conundrum, referral to the ED Social Services Department would be warranted to see if placement could be arranged to avoid continuing dependence upon the overburdened ED.

Many physicians consider a history of substance abuse to be a relative contraindication to chronic opioid therapy for nonmalignant pain because of a predilection for relapse. Dunbar and Katz<sup>25</sup> examined twenty patients with a history of substance abuse treated with chronic opioid therapy for nonmalignant pain. This retrospective study looked at the predictive factors associated with prescription abuse. The subgroup that abused opioids were much more likely to have had recent histories of polysubstance abuse. They also had a tendency to abuse medications early on in their clinical course; requesting early refills soon after initiating opioids. It is notable that signing an opioid contract was not in and of itself a deterrent for prescription drug abuse in this retrospective study. Patients in the subgroup that did not manifest prescription opioid abuse were more likely to have a history of remote alcohol abuse. Especially noticeable among those who fared well were patients who were active members of AA and/or those with a stable support system (e.g., family).

It is widely held that prescribing chronic dosing of controlled substances to practicing addicts (ongoing active substance abuse) is inappropriate because of a significant risk of enabling the dysfunctional behavior leading to further harm. Actively abusing addicts with

chronic pain are usually best managed as an inpatient in a drug treatment facility where they receive their medication for pain as well as treatment for addiction in a controlled setting. Inasmuch as 30-80% of substance abusers suffer from co-existing psychiatric disorders,<sup>26</sup> psychiatric evaluation and treatment, if indicated, should be implemented at the initiation of this controlled therapy. Following discharge, patients should see the prescribing physician, and if the decision is made to use opioids in the setting of recent or remote substance abuse, additional opioids for pain may be given every few days with the goal of progressively lengthening the interval between visits as mutual trust develops. The physician can develop a trusting relationship by demonstrating empathy while at the same time establishing clear behavioral boundaries. During the opioid trial, the patient must demonstrate compliance with all aspects of the treatment regimen. It is often recommended that prescription bottles be brought to the clinic so that the clinician may perform pill counts or, if transdermal patches are used, they may be returned after use for inspection to determine that they have not been tampered. Periodic urine toxicology screens should be performed to exclude illicit drug use. The patient should be informed at the onset of treatment with opioids that the pain medications will not eliminate their pain entirely. Instead, a treatment plan can be prearranged whereby a percentage of pain relief (e.g., approximately 50%) will be the primary goal which should be manifest through evidence of improved physical and psychological functionality. Functional outcomes are set at the beginning of treatment and usually involve determining the means by which functional gains may be made evident to the clinician. For example, patients may bring in collateral sources such as family members or documentation of participation in physical or psychological reconditioning activities or sobriety support programs. This script is then religiously followed during each subsequent visit. Using a mutually agreed upon course, a successful trial should result in the reduction of the drug-seeking behavior normally encountered in this setting as the patient notes advanced pain relief and improved function. In addition to office visits, enrollment in a support group for substance abusers or other programs that promote improved social, psychological, or physical function are mandatory. The type of organized meeting or program should be left up to the preference of the patient and physician. Some prefer alcoholics anonymous (A.A.) or narcotics anonymous (N.A.) while others utilize group psychotherapy. But the relative importance of this type of support activity is well known and cannot be overemphasized. The same type of close prescribing physician supervision with complementary social, psychological,

and physical support can be utilized in the case of a person with a remote history of substance abuse; the only difference being that this latter individual may be manageable on an outpatient basis at the time of initiation of contact.<sup>27</sup>

### **Influence of Opioid Contracting on Prescription Drug Compliance**

Contracts are often employed in the chronic administration of opioids and are intended to improve adherence to a treatment regimen. In addition to enhancement of compliance, contracts provide education and documentation. Although the efficacy of opioid contracting is not known, studies reviewing the use of contracts for patients in methadone programs are promising. Nolimal, et al.,<sup>28</sup> studied fourteen methadone maintenance patients who were offered either discharge or a contract. The rate of drug-free urine toxicology screens increased from 38% in the three months before intervention to 55% during the three-month intervention with contracting. Marked improvement occurred during the first month, with the effect waning thereafter. Saxon, et al.,<sup>29</sup> evaluated the outcome of a mandatory structured contingency contracting system in a methadone maintenance program in a group of patients who continued illicit drug use. The contracting involved weekly urine toxicology screens. If patients continued the use of illicit drugs, the initial contingency was to lower their methadone dose. Tapering (detoxification) and discharge followed subsequent violations. Illicit opioid use decreased significantly for subjects utilizing the more stringent contracts.

There is limited evidence to support successful contracting in the pain population. An anecdotal report by Burchman, et al.,<sup>30</sup> described the implementation of a successful agreement in patients with non-malignant pain. Key features included acknowledgement that previous treatment strategies had failed, a listing of side effects and the risks of opioid therapy (including the potential for addiction), and the contingencies of treatment, including the importance of pain relief coupled to enhanced function via active participation in other therapies. Fishman, et al.,<sup>31</sup> compared thirty-nine opioid contracts from major academic programs finding wide variability of content. However, there was a core group of themes found consistently amongst the contracts reviewed. The "opioid contract" often included a clear description of what constitutes medication use and abuse, terms for random drug screening, consequences of contract violations, and measures for opioid discontinuation should this become required. Multiple instances of minor deviations of the contract were generally tolerated before resorting to severing the agreement. However, unlawful activities such as

forging prescriptions, selling drugs and/or resumption of alcohol or illicit drug intake or abuse were often grounds for immediate tapering and discharge.

A contract is often used to supplement the introduction of important concepts required for safe opioid prescribing to patients beyond that which the busy office physician can accomplish during a visit. It may behoove the ED physician to inquire about the presence of an opioid agreement which may provide information as to whether or not the patient had been under the care of a physician who tried to prevent the patient from seeking multiple providers. It might also be a means of deciphering whether or not the patient has had difficulties with other providers who might have stopped providing opioids. But there may have been other reasons for a treatment failure. Previous aborted therapy with opioids may have had any number of underlying reasons, including: (1) inadequate titration of dose, (2) unsuitable dosing schedule, (3) opioid insensitive pain relating to the nature of the pain generator (e.g., neu-

ropathic pain), and (4) development of side-effects that limit dose escalation. Therefore, the practitioner cannot assume a cause and effect relationship from recognition of aberrant behaviors to treatment failure.

### Influence of the Type of Medication on Prescription Drug Compliance

A number of opioids are available for clinical use, including both short and long-acting agents (Table 6). The types of opioids and vehicles for drug administration are expanding as basic scientists and pharmaceutical companies recognize the need for alternative agents and different methods of drug delivery. New and more potent synthetic opioids with novel delivery systems have been developed and are undergoing clinical trials. A matchstick-sized implanted osmotic pump (Chronogestic™) that delivers sufentanil subcutaneously for more than ninety days is being developed to treat chronic pain.<sup>32</sup> Respimat™ is a novel, compact, propellant-free, multi-dose inhaler that employs a spring to

push drug solution through a nozzle, which generates a slow-moving aerosol allowing rapid delivery of opioid.<sup>33</sup> E-TRANS™ fentanyl, an electrotransport system (ETS), allows self-titration of the drug by the patient, for the management of acute pain with a titratable dose.<sup>34</sup> A novel, once-daily, osmotic technology (OROS™), allows extended-release hydromorphone delivery.<sup>35</sup> Having a variety of agents available allows opioid rotation; a tactic often employed to (1) rotate between different long-acting opioids to improve analgesia and reduce side-effects, and (2) rotate from a short-acting opioid to a long-acting opioid to establish stable analgesia in order to minimize withdrawal symptoms, risk of tolerance, and addiction. When studied empirically, opioid rotation between different long-acting opioids resulted in better overall analgesia and fewer side-effects at dose levels predicted to be equianalgesic.<sup>36</sup> Interestingly, the same study revealed that the majority of the patients rotated from short-acting opioids to long-acting opioids also obtained improved analgesia, but at a cost of a 74% increase in the opioid dose.

The Oregon Health Resources Commission performed an evidenced-based review comparing long and

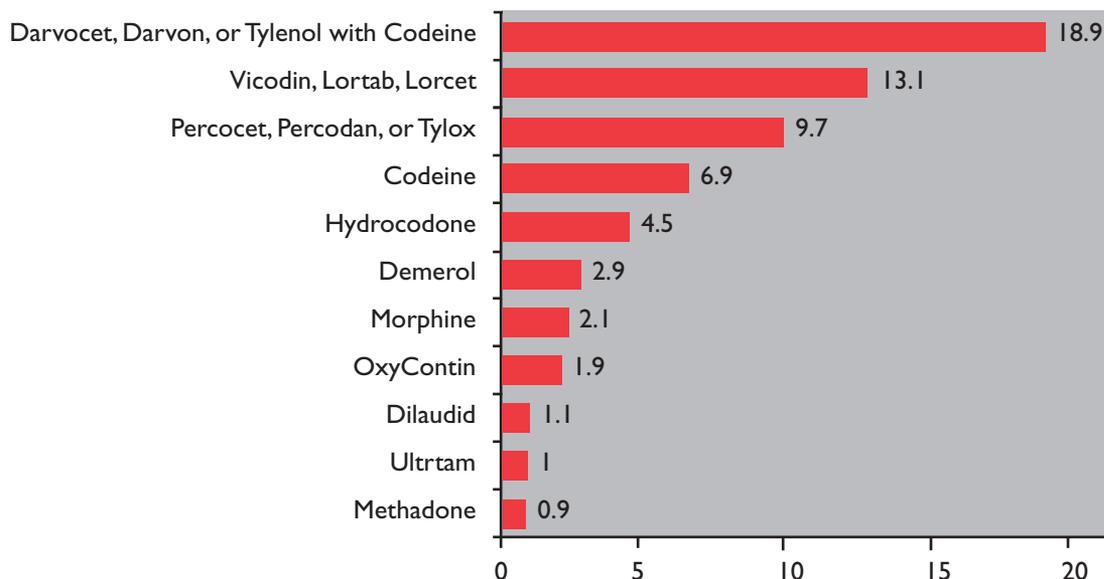
Table 6

#### Equianalgesic Dosing (Morphine 10 mg IV or 30 mg po)

Opioid	Generic Name	Equianalgesic Amount	Comments
Short-Acting	Codeine	200 mg	Most widely employed naturally occurring opioid
	Hydrocodone	20-30 mg	Many products combining hydrocodone and non-opioid analgesics available
	Oxycodone	20-30 mg	High abuse potential
	Propoxyphene	130 mg	Not more effective than aspirin alone
	Tramadol	120 mg	Avoid in patients at risk for seizures or taking SSRIs
Long-Acting	Fentanyl Patch	N/A	25 ug patch is equal to approximately 45 mg of morphine equivalents per day
	Slow Release Morphine	30 mg	Available as 15, 30, 60, and 100 mg pills
	Slow Release Oxycodone	20 mg	Available as 20, 40, and 80 mg pills
	Methadone	10 mg	The morphine-to-methadone conversion ratio increases as the previous dose of morphine increases; conversion ratios may not be bidirectional

Figure 3

**Estimated Numbers (in Millions) of Lifetime Nonmedical Use of Selected Pain Relievers Among Persons Aged 12 or Older: 2002** <<http://www.oas.samhsa.gov/2k4/pain/pain.htm>>



short-acting opioids.<sup>37</sup> No significant differences in efficacy (pain relief) were found and there was insufficient evidence to suggest that long-acting opioids, as a class, were more effective or safer than short-acting opioids in terms of abuse liability. This conclusion is in contradistinction to empirical evidence from a Substance Abuse and Mental Health Services Administration (SAMSHA) Survey (Fig 3) in 2002 revealing that that short-acting opioids have a much higher incidence of diversion and therefore, are preferred as agents of abuse. It would seem plausible that chronic pain patients are susceptible to similar inducements for abusive behavior as were the nonmedical users of prescription-type drugs depicted in Fig 3. Therefore, it has been argued<sup>38</sup> on theoretical grounds that long-acting opioids are preferable to the short-acting variety when treating chronic pain. ED physicians may elect to provide either type of medication. It is not critical that the long-acting agents be given at every encounter as the urgent and brief visits that take place in the ED may suffice with the provision of short-acting opioids for brief periods of time. Presumably, the amount of opioid provided should be limited to that which would provide a bridge to the patient's next appointment with their treating physician who will provide continuity of care. One exception to this general rule would be the patient who manifests an active addictive state. Unless significant mitigating circumstances are present, (e.g., advised by primary care physician to proceed with opioid refill and patient has evidence of strong social support), this patient should not be given opioids by the ED

physician. Instead, if possible, the patient should be referred to an addictionist and the patient provided with an opioid taper plus adjuvant analgesics (acetaminophen, NSAIDs, etc.).

### Medical Records Documentation

Documentation is an essential component of safe and effective opioid prescribing. This point is reflected in the *Model Policy for the Use of Controlled Substances for the Treatment of Pain* by the Federation of State Medical Boards of the United States (<http://www.fsmb.org/>). The *Model Policy* is designed to communicate critical messages to licensees including:

- The state medical board views pain management to be important and integral to the practice of medicine
- Opioid analgesics may be necessary for the relief of pain
- The use of opioids for other than legitimate medical purposes poses a threat to the individual and society
- Physicians have a responsibility to minimize the potential for the abuse and diversion of controlled substances
- Physicians will not be sanctioned solely for prescribing opioid analgesics for legitimate medical purposes

This and other guidelines and policies for the use of opioids in the treatment of pain uniformly stress the im-

portance that records remain current, maintained in an accessible manner, and readily available for review. Furthermore, accurate and complete records must include details of the medical history and physical examination, diagnostic, therapeutic and laboratory results, evaluations and consultations, treatment objectives, discussion of risks and benefits, informed consent, treatments, medications (including date, type, dosage, and quantity prescribed), instructions, agreements, and periodic reviews. Although these guidelines are identical to what is expected of any medication treatment, they have not been followed. In an evaluation of 300 randomly selected charts<sup>39</sup> from a Veterans Administration primary care facility, only 39% of the cases were found to have comments pertaining to a treatment plan or the efficacy of prescribed opioids in reducing pain, improving function, or otherwise benefiting the patients. Only 41% of these patients had a physical exam which seemed to be directed at the painful area within the preceding six months. In addition, a paltry 17% of patients receiving opioids had both comments on a treatment plan or follow-up and a pain-related physical exam within six months of chart review. Surprisingly, many patients had repeated documentation of lung and heart auscultation despite a lack of pulmonary or cardiac symptoms but did not have a documented physical exam directed at evaluating the pain complaint. The presence or absence of side-effects was documented in only 9% of the charts reviewed. Another evaluation<sup>40</sup> was conducted at an academic family medicine center in Oregon, examining the percentage of records exhibiting documentation compliance with state prescribing laws and other features indicative of a high standard of care. The Oregon legislature had previously mandated that patients receive a full disclosure, identified as a "Required Material Risk Notification Form," explaining the risks and benefits of opioid prescribing.<sup>41</sup> Despite having this state law that requiring these consent documents, they were absent from 100% of charts reviewed by the authors. Similar to the findings at the Veterans Administration facility,<sup>42</sup> medication contracts were only present in 39% of records and documentation of a pain evaluation and functional evaluation was present in 67% and 54% of records, respectively.

Obviously, the ED physician cannot be expected to provide the degree of documentation that a continuity care physician can accumulate during multiple encounters. Nonetheless, the propagation and promotion of guidelines by various professional and governmental agencies have generally converged on the importance of documentation in opioid therapy. Fears of punitive consequences for not meeting such demanding requirements, coupled with low yield in return for

time and effort invested in conforming to these guidelines, have probably deterred physicians from prescribing opioids even in appropriate settings. The results of these fears are continued pervasive inadequacies of pain management. This "opiophobia" promotes a cycle that perpetrates barriers to care throughout the medical sphere including primary care, specialty, and emergency settings. In order to circumvent this in the ED setting, medical record documentation of opioid prescribing should be a simple explanation of the rationale for the prescription with a disclosure of the amount and type of medication.

### **The Role of Habitual Patient Files and Prescription Monitoring Programs in Assessing Prescription Opioid Abuse**

EDs may maintain an inventory of names of patients who are suspected of repeatedly visiting to obtain prescription opioids for nontherapeutic purposes. One purported benefit of "habitual patient files," "frequent flyer files," and "special needs files" is the potential for reducing prescription fraud. It is argued that habitual patient files might support physicians in complying with the prohibition on prescribing to addicts.<sup>43</sup> Maintenance of such files present many possible benefits, but they also may stigmatize chronic pain patients in the ED. Such patients may wonder why they have permanent files while others do not. Such files may also be used to negatively label these patients as different and potentially decrease access to care. While in principle this may be considered akin to the office-based physician's recollection or notation of aberrant behaviors in the medical record, it is different because of issues concerning patient confidentiality. New federal privacy regulations implemented under the Health Insurance Portability and Accountability Act of 1996 (HIPAA) reflect the concern that newer modes of electronic transmission of health (and insurance) data may be susceptible to disclosure through security breaches. When considering instituting habitual patient files, it is suggested that a health-care attorney with expertise in privacy issues be consulted to assure that the process conforms to both state and federal law. In general, habitual patient files are permissible if their goals include "protecting patients from harm as the result of drug abuse, preventing the inappropriate use of valuable ED resources, or protecting society from harms caused by the resale of ill-gotten drugs or the actions of intoxicated persons."<sup>44</sup> HIPAA allows physicians to share protected health information with other physicians, nurses, and other health-care workers for the purposes of treatment. But the same information cannot be provided outside of the covered entity (i.e., hospital, healthcare plan, etc.) so that the contents of a habitual file should

never be divulged to health-care workers in another institution. The design and implementation of the file should optimally have specific provisions for managing chronic pain patients. For instance, there might be limits on the number of visits or the amount of medication to be provided to chronic pain patients. This would be systematized as practice parameters by the ED medical staff to be repeatedly amended through continuous quality improvement so that newer information regarding opioid prescribing may be introduced. The opportunity also exists for EDs to provide *a priori* guidance as to the type of pain medications that their institution will provide. In this manner, the use of methadone might be limited. Although methadone has numerous advantages as an analgesic, its unusual metabolism distinguishes it as a potentially unsafe medication. Any physician prescribing this medication for chronic pain has to be aware of its interactions with other medications as well as the tendency for this drug to accumulate and cause sedation and respiratory depression even in individuals who are tolerant to other opioids.<sup>45</sup> The ED medical staff might also consider listing providers that will accept chronic pain patients into their practices so that referrals to appropriate resources may be enhanced.

There have been legislative enactments to allow disclosure of information between covered entities to prevent the practice of doctor shopping, where abusers visit multiple physicians in order to obtain several prescriptions. The Kentucky All Schedules Prescription Electronic Reporting (KASPER) system archives information by having pharmacists enter the controlled substance prescription information into a database. Practitioners are then provided real time access to this information. However, doctor shoppers have circumvented KASPER by traveling to one of the seven states surrounding Kentucky. As a partial attempt to remedy this problem, The National All Schedules Prescription Electronic Reporting (NASPER) bill<sup>46</sup> has been passed into law by the U.S. Congress and is awaiting the President's signature. This bill offers a voluntary program whereby independent states may receive federal funding for a prescription monitoring program. NASPER does not allow for a national database on the dispensing of controlled substances in Schedules II-IV and thus falls short of the potential for disclosure of doctor shopping outside of the boundaries of a single state. But it is an initial attempt by the federal government to manage doctor shopping. Whether or not an individual ED physician would have access to this data will depend upon the state in which he or she practiced since the present plan is to provide money to individual states allowing each to formulate their own individualized program.

## Conclusions

Patients with chronic pain may present to the ED in hopes of receiving treatment. Concerns range from whether some patient populations receive inadequate analgesia to whether some patients receive too much opioid medication, potentially placing providers under scrutiny. Our empirical evaluation of the scope of this problem (in press) revealed that many of the patients who utilized either a metropolitan University or a Veterans Administration ED had a high propensity for prescription opioid abuse. This was corroborated by a similarly high incidence of a history of current or past substance abuse in these patients. Multivariate analysis revealed a positive correlation of the prescription opioid abuse with several psychological factors (e.g., anxiety and personality disorders) that are commonly associated with chronic pain.

At the present time, there is no simple test to determine if a patient's pain complaint is legitimate nor if there are additional risks such as whether or not the medications have been prescribed by multiple providers. Physicians should evaluate chronic pain patients for a personal or family history of alcoholism, substance abuse, and legal problems (i.e., driving under the influence). If the majority of these items are answered affirmatively, there is a high likelihood that the patient will manifest some type of aberrant behavior. This does not mean that the patient should not be provided pain medications. But a notation can be placed in the medical record that the patient is at high risk of prescription opioid abuse. If a patient's history of alcoholism or substance abuse is current, a referral to an addictionist or pain practitioner should be made and it may be wise to avoid providing opioids in the ED. As alternatives, NSAIDs and other medicines that have been found to be effective substitutes for opioids in treating headache, sickle cell crisis, and renal colic<sup>47</sup> may be prescribed. If the problem with abuse is remote, then the ED physician must use his/her best judgment as to whether or not the patient can be provided opioids. If there is no history of abuse, then the ED physician can conclude that that the patient is at low risk for manifesting abusive behaviors. In either case, the patient should be counseled to seek the care of a practitioner who can provide continuity of care. Habitual files can be used to provide a means for an ED to structure treatment of chronic pain patients and maintain continuity of information. In the future, Prescription Monitoring Programs may replace habitual files so that information of the use of multiple providers is available on a real time basis. Until then, the prudent ED physician must balance compassion with attempts to avoid deception.

## Acknowledgements

The authors gratefully acknowledge the support of the Mayday Fund in the development of this article.

## References

1. D. E. Joranson, K. M. Ryan, A. M. Gilson, J. L. Dahl, "Trends in Medical Use and Abuse of Opioid Analgesics," *JAMA* 283, no. 13 (2000): 1710-1714.
2. Nonmedical Use of Prescription Pain Relievers, available at <http://www.oas.samhsa.gov/2k4/pain/pain.htm> (last visited October 11, 2005).
3. The President's National Drug Control Strategy 2004, available at <http://www.whitehouse.gov/publications/policy/ndcs04/2004ndcs.pdf> (last visited October 11, 2005).
4. DEA, Department of Justice, Last Acts Partnership, "Pain & Policies Study Group at the University of Wisconsin Prescription Pain Medications: Frequently Asked Questions and Answers for Health Care Professionals, and Law Enforcement Personnel," *Journal of Pain, Palliative Care and Pharmacotherapy* 19, no. 1 (2005): 71-104.
5. J. H. Tamayo-Sarver, N. V. Dawson, R. K. Cydulka, R. S. Wigton, D. W. Baker, "Variability in Emergency Physician Decision Making about Prescribing Opioid Analgesics," *Annals of Emergency Medicine* 43, no. 4 (2004): 483-493.
6. M. Galanter, R. Castaneda, J. Ferman, "Substance Abuse among General Psychiatric Patients: Place of Presentation, Diagnosis, and Treatment," *American Journal of Drug and Alcohol Abuse* 14, no. 2 (1988): 211-235.
7. E. Michna, E. L. Ross, W. L. Hynes, et al., "Predicting Aberrant Drug Behavior in Patients Treated for Chronic Pain: Importance of Abuse History," *Journal of Pain and Symptom Management* 28, no. 3 (2004): 250-258. M. C. Reid, L. L. Engles-Horton, M. B. Weber, R. D. Kerns, E. L. Rogers, P. G. O'Connor, "Use of Opioid Medications for Chronic Noncancer Pain Syndromes in Primary Care," *Journal of General Internal Medicine* 17, no. 3 (2002): 173-179.
8. D. B. MacLeod, R. Swanson, "A New Approach to Chronic Pain in the ED," *American Journal of Emergency Medicine* 14, no. 3 (1996): 323-326.
9. C. J. Cherpitel, G. Borges, "Screening for Drug Use Disorders in the Emergency Department: Performance of the Rapid Drug Problems Screen (RDPS)," *Drug Alcohol Dependency* 74, no. 2 (2004): 171-175; C. J. Cherpitel, G. Borges, "Performance of Screening Instruments for Alcohol Problems in the ER: A Comparison of Mexican-Americans and Mexicans in Mexico," *American Journal of Drug and Alcohol Abuse* 26, no. 4 (2000): 683-702.
10. R. Portenoy, R. Payne, "Acute and Chronic Pain," in J. Lowinson, P. Ruiz, R. Millman, J. Langrod eds., *Substance Abuse: A Comprehensive Textbook* (Baltimore: Williams & Wilkins, 1997): 563-590; J. Jaffe, "Opiates: Clinical Aspects," in J. Lowinson, P. Ruiz, R. E. Millman, eds., *Substance Abuse: A Comprehensive Text* (Baltimore: Williams & Wilkins, 1992): 186-194.
11. C. Chabal, M. K. Erjavec, L. Jacobson, A. Mariano, E. Chaney, "Prescription Opiate Abuse in Chronic Pain Patients: Clinical Criteria, Incidence, and Predictors," *Clinical Journal of Pain* 13, no. 2 (1997): 150-155.
12. N. P. Katz, S. Sherburne, M. Beach, et al., "Behavioral Monitoring and Urine Toxicology Testing in Patients Receiving Long-Term Opioid Therapy," *Anesthesia and Analgesia* 97, no. 4 (2003): 1097-1102, table of contents.
13. P. Compton, J. Darakjian, K. Miotto, "Screening for Addiction in Patients with Chronic Pain and 'Problematic' Substance Use: Evaluation of a Pilot Assessment Tool," *Journal of Pain and Symptom Management* 16, no. 6 (1998): 355-363.
14. L. L. Adams, R. J. Gatchel, R. C. Robinson, et al., "Development of a Self-Report Screening Instrument for Assessing Potential Opioid Medication Misuse in Chronic Pain Patients," *Journal of Pain and Symptom Management* 27, no. 5 (2004): 440-459.
15. S. F. Butler, S. H. Budman, K. Fernandez, R. N. Jamison, "Validation of a Screener and Opioid Assessment Measure for Patients with Chronic Pain," *Pain* 112, no. 1-2 (2004): 65-75.
16. P. Compton, J. Darakjian, K. Miotto, "Screening for Addiction in Patients with Chronic Pain and Problematic Substance Use: Evaluation of a Pilot Assessment Tool," *Journal of Pain and Symptom Management* 16, no. 6 (1998): 355-363.
17. S. D. Passik, K. L. Kirsh, L. Whitcomb, et al., "A New Tool to Assess and Document Pain Outcomes in Chronic Pain Patients Receiving Opioid Therapy," *Clinical Therapeutics* 26, no. 4 (2004): 552-561.
18. NIDA, "Research Report Series - Prescription Drugs: Abuse and Addiction," available at <http://www.drugabuse.gov/Research/Reports/Prescription/prescription6.html> (last visited October 12, 2005).
19. J. A. Ewing, "Detecting Alcoholism. The CAGE Questionnaire," *JAMA* 252, no. 14 (1984): 1905-1907.
20. *Supra* note 7.
21. *Supra* note 7.
22. J. Schulz, T. Parran, "Principles of identification and intervention," in A. W. Graham, B. B. Wilford, 2d eds., *Principles of Addiction Medicine* (Chevy Chase, MD: American Society of Addiction Medicine, 1998): 251.
23. United States Supreme Court decision in *Gonzales v. Raich* 125 S.Ct. 2195 (2005).
24. J. Perrone, F. De Roos, S. Jayaraman, J. E. Hollander, "Drug Screening Versus History in Detection of Substance Use in ED Psychiatric Patients," *American Journal of Emergency Medicine* 19, no. 1 (2001): 49-51.
25. S. A. Dunbar, N. P. Katz, "Chronic Opioid Therapy for Nonmalignant Pain in Patients with a History of Substance Abuse: Report of 20 Cases," *Journal of Pain and Symptom Management* 11, no. 3 (1996): 163-171.
26. S. Savage, "Management of Acute Pain, Chronic Pain and Cancer Pain in the Addicted Patient," in N. Miller, ed., *Principles of Addiction Medicine* Vol. Sec. VIII (Chevy Chase, MD: American Society of Addiction Medicine, 1994): 4.
27. American Society of Addiction Medicine Patient Placement Criteria for the Treatment of Substance-Related Disorders 2005, available at <http://www.stpetershealthcare.org/addiction/SPBHM\_ASAM\_Criteria.pdf> (last visited October 12, 2005).
28. D. Nolimal, T. J. Crowley, "Difficulties in a Clinical Application of Methadone-dose Contingency Contracting," *Journal of Substance Abuse and Treatment* 7, no. 4 (1990): 219-224.
29. A. J. Saxon, D. A. Calsyn, D. R. Kivlahan, D. K. Roszell, "Outcome of Contingency Contracting for Illicit Drug Use in a Methadone Maintenance Program," *Drug and Alcohol Dependency* 31, no. 3 (1993): 205-214.
30. S. L. Burchman, P. S. Pagel, "Implementation of a Formal Treatment Agreement for Outpatient Management of Chronic Nonmalignant Pain with Opioid Analgesics," *Journal of Pain and Symptom Management* 10, no. 7 (1995): 556-563.
31. S. M. Fishman, T. B. Bandman, A. Edwards, D. Borsook, "The Opioid Contract in the Management of Chronic Pain," *Journal of Pain and Symptom Management* 18, no. 1 (1999): 27-37.
32. D. M. Fisher, N. Kellett, R. Lenhardt, "Pharmacokinetics of an Implanted Osmotic Pump Delivering Sufentanil for the Treatment of Chronic Pain," *Anesthesiology* 99, no. 4. (2003): 929-937.
33. D. E. Geller, "New Liquid Aerosol Generation Devices: Systems that Force Pressurized Liquids through Nozzles," *Respiratory Care* 47, no. 12 (2002): 1392-1404; discussion 1404-1395.
34. K. Mystakidou, "E-TRANS fentanyl, ALZA," *Current Opinions Investigational Drugs* 3, no. 3 (2002): 463-469, at 35. M. Palangio, D. W. Northfelt, R. K. Portenoy, et al., "Dose Conversion and Titration with a Novel, Once-Daily, OROS Osmotic Technology, Extended-Release Hydromorphone Formulation in the Treatment of Chronic Malignant or Nonmalignant Pain," *Journal of Pain and Symptom Management* 23, no. 5 (2002): 355-368.
35. A. B. Thomsen, N. Becker, J. Eriksen, "Opioid Rotation In Chronic Non-Malignant Pain Patients. A Retrospective Study," *Acta Anaesthetica Scandinavica* 43, no. 9 (1999): 918-923.
36. R. Chou, E. Clark, M. Helfand, "Comparative Efficacy and Safety of Long-Acting Oral Opioids for Chronic Non-Cancer Pain: A Systematic Review," *Journal of Pain and Symptom Management* 26, no. 5 (2003): 1026-1048.
37. H. A. Heit, "The Truth about Pain Management: The Difference

- Between a Pain Patient and an Addicted Patient," *European Journal of Pain* 5 (2001): 5, Supplement A27-29, 40; B. H. McCarberg, R. L. Barkin, "Long-Acting Opioids for Chronic Pain: Pharmacotherapeutic Opportunities to Enhance Compliance, Quality of Life, and Analgesia," *American Journal of Therapeutics* 8, no. 3 (2001): 181-186.
39. J. D. Clark, "Chronic Pain Prevalence and Analgesic Prescribing in a General Medical Population," *Journal of Pain and Symptom Management* 23, no. 2 (2002): 131-137.
40. A. Watkins, S. Wasmann, L. Dodson, M. Hayes, "An Evaluation of the Care Provided to Patients Prescribed Controlled Substances for Chronic Nonmalignant Pain at an Academic Family Medicine Center," *Family Medicine* 36, no. 7 (2004): 487-489.
41. Material Risk Notice, "Oregon Board of Medical Examiners," available at <<http://www.oregon.gov/BME/PDFforms/MaterialRiskNotice.pdf>> (last visited October 12, 2005).
42. *Supra* note 39.
43. J. M. Geiderman, "Keeping Lists and Naming Names: Habitual Patient Files for Suspected Nontherapeutic Drug-Seeking Patients," *Annals of Emergency Medicine* 41, no. 6 (2003): 873-881.
44. J. C. Moskop, C. A. Marco, G. L. Larkin, J. M. Geiderman, A. R. Derse, "From Hippocrates to HIPAA: Privacy and Confidentiality in Emergency Medicine - Part II: Challenges in the Emergency Department," *Annals of Emergency Medicine* 45, no. 1 (2005): 60-67.
45. S. M. Fishman, B. Wilsey, G. Mahajan, P. Molina, "Methadone Reincarnated: Novel Clinical Applications with Related Concerns," *Pain and Medicine* 3, no. 4 (2002): 339-348.
46. *National All Schedules Prescription Electronic Reporting Act of 2005*, available at <<http://www.govtrack.us/data/us/bills.text/109/h1132.pdf>> (last visited October 12, 2005).
47. B. Wilsey, S. Fishman, J. S. Rose, J. Papazian, "Pain management in the ED," *American Journal of Emergency Medicine* 22, no. 1 (2004): 51-57.
48. Jaffe, *supra* note 10.
49. C. Chabal, M. K. Erjavec, L. Jacobson, A. Mariano, E. Chaney, "Prescription Opiate Abuse in Chronic Pain Patients: Clinical Criteria, Incidence, and Predictors," *Clinical Journal of Pain* 13, no. 2 (1997): 150-155.
50. P. Compton, etc., *supra* note 13.
51. NIDA, *supra* note 18.
52. M. C. Reid, etc., *supra* note 7.