

**TESTIMONY TO THE SENATE JUDICIARY COMMITTEE, SUBCOMMITTEE ON
CRIME AND TERRORISM**

*RESPONDING TO THE PRESCRIPTION DRUG EPIDEMIC: STRATEGIES FOR REDUCING
ABUSE, MISUSE, DIVERSION, AND FRAUD*

May 24, 2011

Senator Whitehouse, and members and staff of the Committee on Judiciary Subcommittee on Crime and Terrorism:

Thank you for inviting the American Society of Interventional Pain Physicians (ASIPP) to provide a written testimony on behalf of the Executive Committee.

ASIPP was founded in 1998 for the promotion, development and use of safe and appropriate pain treatments, including the appropriate use of medication. ASIPP is a not-for-profit professional organization comprised of over 4,500 interventional pain physicians and other practitioners who are dedicated to ensuring safe, appropriate and equal access to essential pain management services for patients across the country suffering with chronic and acute pain. There are approximately 7,000 trained and qualified physicians practicing interventional pain management in the United States. We have been active in preventing prescription drug use, overuse, and abuse. The National All Schedules Prescription Electronic Reporting Act (NASPER) was created by ASIPP and signed into law by President George W. Bush in 2005. This law requires states to collect prescription information for Schedule II, III, and IV medications. It also requires states to have the capability to share this information with each other. This can decrease cross-border narcotic trafficking.

After the liberalization of laws governing opioid prescribing for the treatment of chronic non-cancer pain by state medical boards in the late 1990s (1), and with the introduction of new pain management standards for inpatient and outpatient medical care implemented by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) in 2000 (2), many physicians and organizations began advocating for increased usage of opioids in the treatment of chronic pain (3-14). Opioids, in general, and the most potent forms of opioids including Schedule II drugs, in particular, have dramatically increased (15-17). This dramatic increase has been due to a shift in the regulations largely driven by published, albeit weak, evidence suggesting that opioids could be used safely in selected persons with chronic non-cancer pain (18, 19), by the advocacy of physicians and others who felt constrained by the near absolute prohibition of such before that time (6) and by consensus of professional societies of pain specialists who believe that chronic pain had been previously undertreated (13). Despite the escalating use and abuse of therapeutic opioids (4), nearly 15 to 20 years later the scientific evidence for the effectiveness of opioids for chronic non-cancer pain remains unclear. Concerns continue regarding efficacy (3-5, 19, 20); problematic physiologic effects such as hyperalgesia (21), hypogonadism and sexual dysfunction (22); and adverse side effects – especially the potential for misuse and abuse (23, 24) – and the increase in opioid-related deaths (25-40). Meanwhile, numerous efforts by organizations for appropriate use and exercise of constraints have been misrepresented, with these opinions used to a minimum extent (3, 4, 10, 41-47).

The treatment of chronic pain, therapeutic opioid use and abuse, and the nonmedical use of prescription drugs have been topics of intense focus and debate (3-5, 47-99). Due in some measure to the campaign of alleged undertreatment of pain (100-122), Americans, constituting only 4.6% of the world's population, have been consuming 80% of the global opioid supply, and

99% of the global hydrocodone supply, as well as two-thirds of the world's illegal drugs (4,10-12,122,123). Retail sales of commonly used opioid medications (including methadone, oxycodone, fentanyl base, hydromorphone, hydrocodone, morphine, meperidine, and codeine) have increased from a total of 50.7 million grams in 1997 to 126.5 million grams in 2007. This is an overall increase of 149% with increases ranging from 222% for morphine, 280% for hydrocodone, 319% for hydromorphone, 525% for fentanyl base, 866% for oxycodone, to 1293% for methadone (14). In 2005 and 2006, over 120 million prescriptions for hydrocodone were issued and hydrocodone continues to be the number one prescribed drug in the United States (10,14,123-125). Average sales of opioids per person have increased from 74 milligrams in 1997 to 369 milligrams in 2007, a 402% increase. It is no surprise then that surveys of nonprescription drug abuse (4,126-131), emergency department visits for prescription controlled drugs (132-138), unintentional deaths due to prescription controlled substances (28-40,139-145), therapeutic use of opioids, and opioid abuse (15-17,48-103,140,146-174) have been steadily rising.

Chronic pain has been defined by the ASIPP (175,176) as, “pain that persists 6 months after an injury and beyond the usual course of an acute disease or a reasonable time for a comparable injury to heal, that is associated with chronic pathologic processes that cause continuous or intermittent pain for months or years that may continue in the presence or absence of demonstrable pathology; may not be amenable to routine pain control methods; and healing may never occur.”

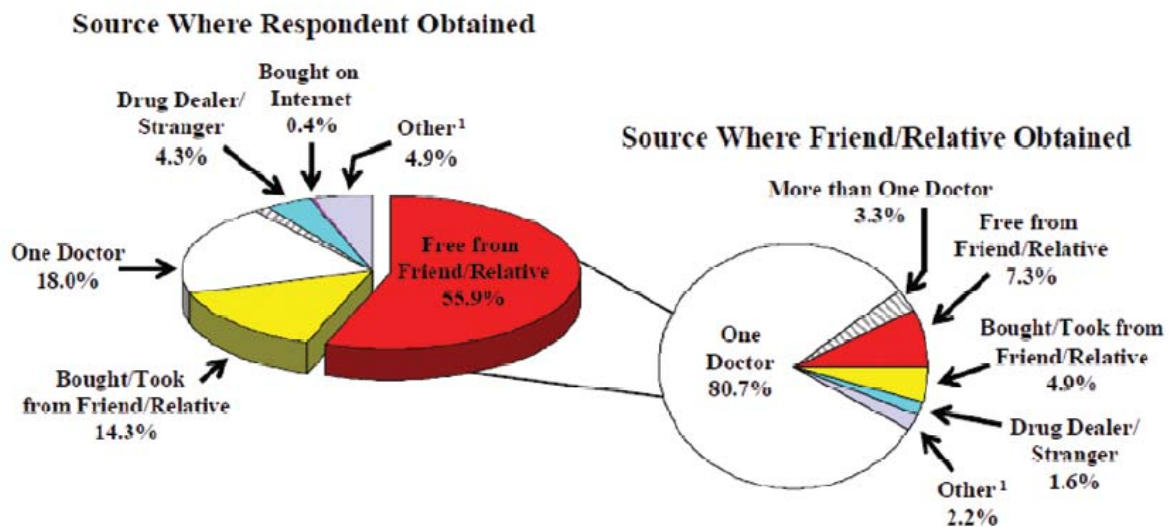
Chronic persistent pain can cause significant impairment of physical and psychological health, and performance of social responsibilities, including work and family life (175-182). While modern medicine has shown significant improvements in the understanding of pain

(including diagnosis and treatment) (175,176,183-227), chronic pain continues to be an epidemic resulting in vocational, social and family discord, which may make the difference between life and death, and is accompanied by claims of inadequate treatment (100-121,175,176,228-231).

Prevalence and associated disability continue to increase. Harkness et al (179), in a 2000 publication, showed that there was a large difference in the prevalence of musculoskeletal pain over a 40-year period of investigation. The results showed that overall, the prevalence of low back pain increased from 8.1 to 17.8% in males, and it increased from 9.1 to 18.2% in females. Similarly, Freburger et al (180) reported the rising prevalence of chronic low back pain following an evaluation of North Carolina (USA) households conducted in 1992 and repeated in 2006. The results showed an increasing prevalence of chronic impairing low back pain over the 14-year interval from 3.9% in 1992 to 10.2% in 2006, with an overall increase of 162% in low back pain and an annual increase of 11.6% associated with care-seeking and disability.

1.0 SOURCE OF PRESCRIPTION DRUGS

Of importance to the medical profession is the source of prescription-type pain relievers used non-medically. Among persons aged 12 or older who used pain relievers non-medically in the past 12 months, 55.9% reported that they received the drug for free from a friend or relative (126). Another 8.9% bought the drug from a friend or relative, and 5.4% took them from a friend or relative without asking. An additional 18% reported that they got the drug from just one doctor. In contrast, only 4.3% got the pain relievers from a drug dealer or other stranger, and only 0.4% reported buying the drug on the internet (Fig. 1).



Note: Totals may not sum to 100% because of rounding or because suppressed estimates are not shown.

¹ The Other category includes the sources: "Wrote Fake Prescription," "Stole from Doctor's Office/Clinic/Hospital/Pharmacy," and "Some Other Way."

Fig. 1. Source where pain relievers were obtained for most recent nonmedical use among past year users aged 12 or older: 2007-2008.

In 81.7% of the cases where nonmedical users of prescription pain relievers obtained their drugs for free from a friend or relative, the individuals indicated that their friend or relative had obtained the drugs from just one doctor (126). Only 1.6% reported that a friend or relative had

bought the drug from a drug dealer or other stranger. Even more striking is the fact that in 2007-2008, 42.8% of past year methamphetamine users reported that they obtained the methamphetamine they used most recently for free from a friend or relative, with an additional 30.1% buying it from a friend or relative. Only one in 5 users of methamphetamine (21.17%) bought it from a drug dealer or other stranger (126).

2.0 PRESCRIPTION OPIOID ABUSE

Prescription opioids are abused among the populations with or without pain, and in patients receiving or not receiving opioids. The abuse is associated with substantial risks to the patients and the nation as a whole with increasing emergency department visits, deaths, and federal drug spending.

Along with the increase of prescriptions for controlled drugs from 1992 to 2003 of 154% (151), there was also a 90% increase in the number of people who admitted abusing controlled prescription drugs. Mahowald et al (158) and White et al (232) evaluated opioid abuse in the insured population of the United States. Opioid abuse was determined to be present in 6.7 to 8 per 10,000 persons insured. However, opioid abusers also presented with multiple comorbidities and expenses 8 times higher than for non-abusers (\$15,884 vs. \$1,830).

The cost of opioid abuse is enormous. The White House Budget Office estimated drug abuse costs to the US Government to be approximately \$300 billion a year (10,123). The White House Office of National Drug Control Policy (ONDCP), a component of the Executive Office of the President, established by the Anti-Drug Abuse Act of 1998, has been spending \$12-13 billion each year.

The central question when prescribing opioids for chronic noncancer pain is how best to balance the risk of opioid abuse with the pain relief provided by these medications (4,10,19,25,36,37,45,46,49,51-55,60,61,63-66,144,164,233-242). While proponents claim extremely low levels of opioid abuse (243), opioids are by far the most abused drugs, especially in chronic pain management settings (4,12,19,25,36,37,46,144,233-235). Numerous investigations have illustrated drug abuse in 18–41% of patients receiving opioids for chronic pain (10,48,49,51-55,60,61,63-66,241,242,244).

Martell et al (48), in a systematic review of opioid treatment for chronic back pain, estimated the prevalence of lifetime substance use disorders to range from 36 to 56%, with a 43% current substance use disorder rate. Furthermore, aberrant medication-taking behaviors ranged from 5 to 24%.

Multiple investigators have also studied the issue of illicit drug use in chronic pain patients receiving controlled substances (51,61,63-66,241,242). The results showed that illicit drug use in patients without controlled substance abuse was found in 14–16% of patients and illicit drug use in patients with controlled substance abuse was present in 34% of the patients (51,53,54). Illicit drug use was significant in chronic pain patients in general, but illicit drug use was similar in patients using either long-acting or short-acting opioids (64). In a study on effective monitoring of opiates in chronic pain patients evaluating 111,872 specimens collected over a 1-year time period from pain treatment facilities throughout the USA (241), and in another study evaluating 938,586 specimens, a significant proportion were shown to have abnormal drug testing with non-prescribed medications, illicit drugs and inappropriate intake of drugs (242). In other evaluations, it was shown that adherence monitoring will in fact decrease controlled substance abuse and illicit drug use (61,66).

Along with an increase of prescriptions for controlled drugs from 1992 to 2002 of 154%, there was also a 90% increase in the number of people who admitted abusing controlled prescription drugs. Studies also evaluated opioid abuse in the insured population of the USA (232). Opioid abuse was determined to be present in 6.7–8 per 10,000 persons insured; however, opioid abusers presented with multiple comorbidities and expenses 8-times higher than for non-abusers (US \$15,884 vs. \$1830).

3.0 DRUG POISONING AND DEATHS

Unintentional drug poisonings in the United States are common. Unintentional, or accidental, with no harm intended, includes drug overdoses resulting from drug misuse, drug abuse, and taking too much of a drug for medical reasons (245).

3.1 *Emergency Department Visits*

The Drug Abuse Warning Network (DAWN) publishes results of emergency department visits with drug misuse and abuse. In 2008, DAWN (132) published results with over one million emergency department visits involving an illicit drug.

1. Hydrocodone/combinations in 89,047 emergency department visits,
2. Oxycodone/combinations in 105,208 emergency department visits, and;
3. Methadone in 63,629 emergency department visits.

Emergency department visits for narcotics were 305,885 in 2008 compared to 42,857 in 1995, a 614% increase over a period of 13 years (Fig. 2). Among the psychotherapeutic agents, the anxiolytics (anti-anxiety agents, sedatives, and hypnotics) were the most frequent, occurring in 30% of the visits associated with nonmedical use of pharmaceuticals (132). DAWN estimated that 271,700 emergency department visits were associated with nonmedical use of pharmaceuticals involving benzodiazepines in 2008, compared to 71,609 in 1995, a 279% increase over a period of 13 years (71,132-134).

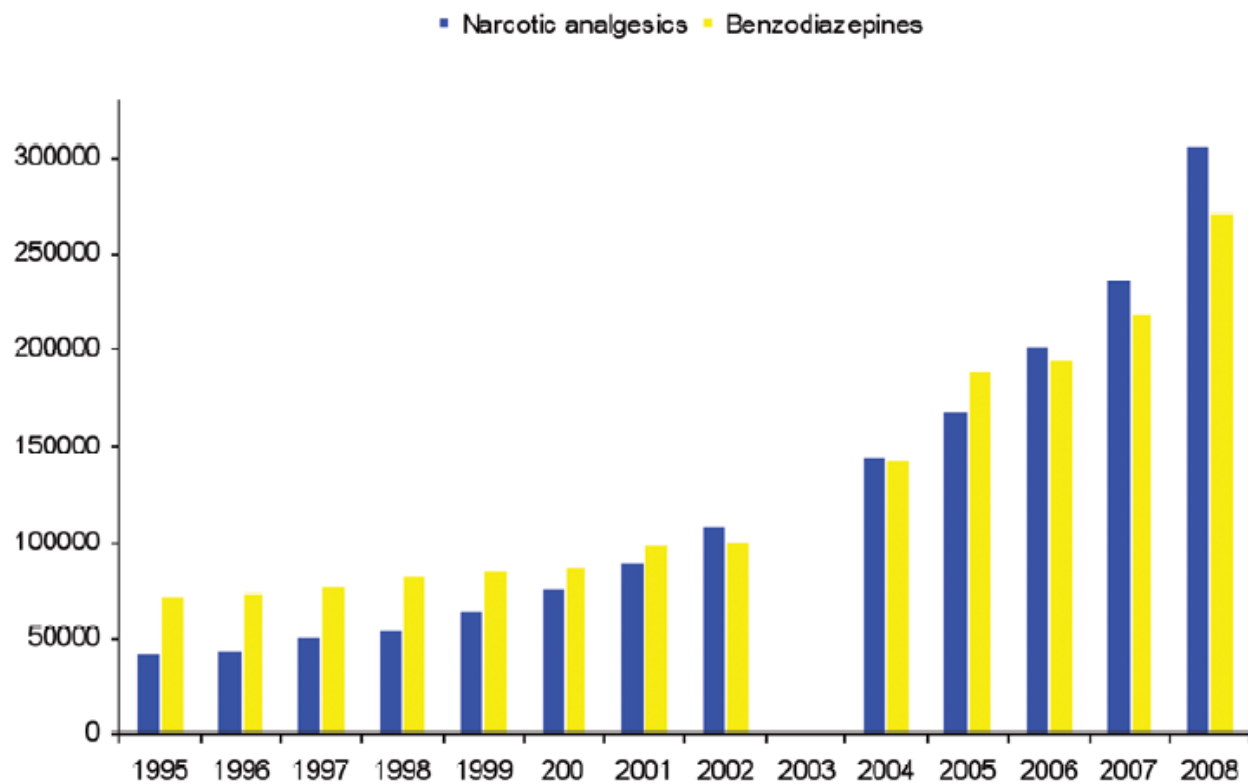
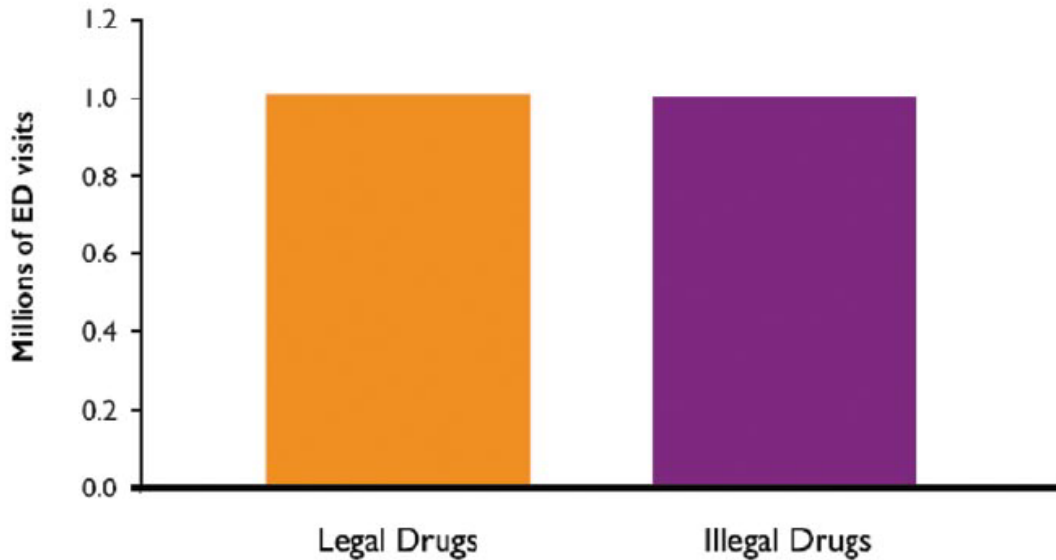


Fig. 2. *Drug abuse related emergency department visits.*

In 2008, DAWN estimates show that prescription or over-the-counter drugs used non-medically were involved in 1.0 million emergency department visits, and illicit drugs were involved in 1.0 millions visits (Fig. 3).

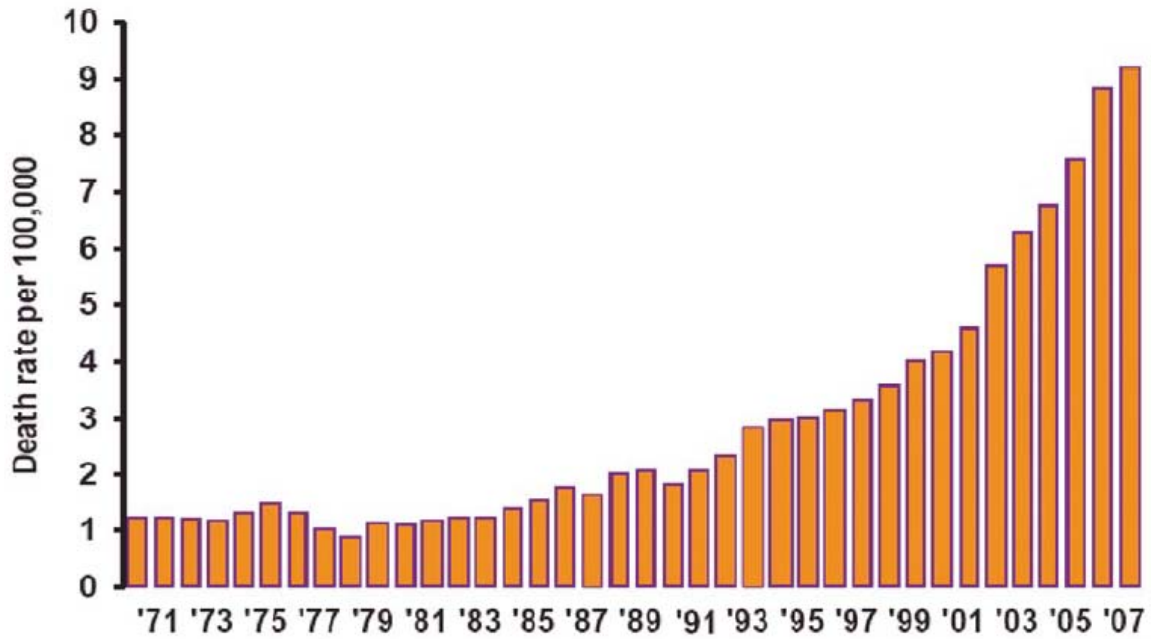


Source: Drug Abuse Warning Network.

Fig. 3. *Estimated numbers of emergency department visits involving legal drugs used non-medically and illegal drugs, United States, 2008.*

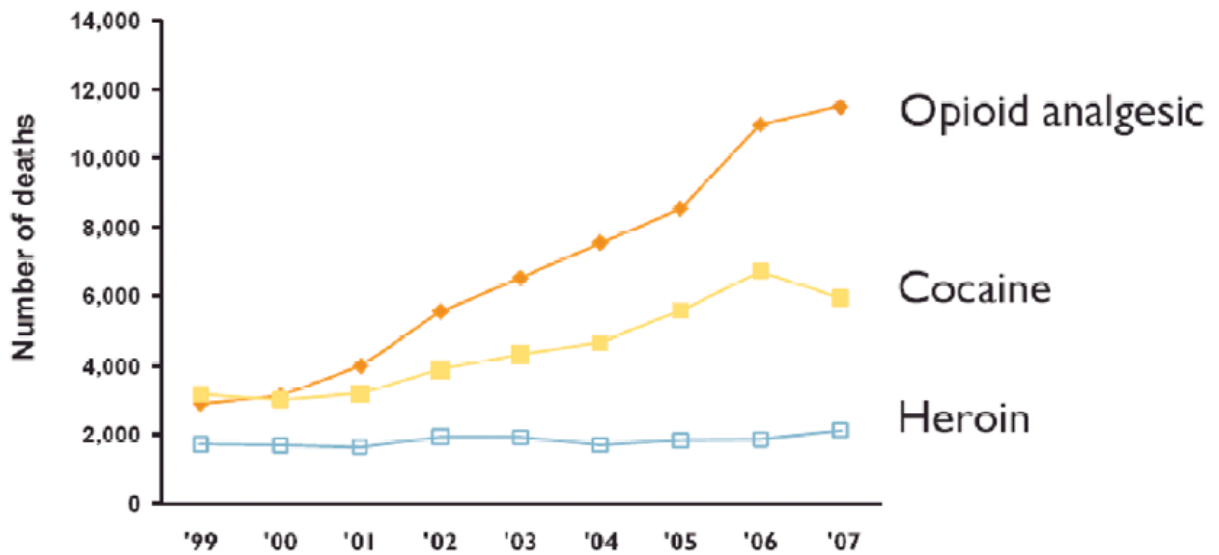
3.2 *Deaths Due to Opioids*

Drug overdose death rates have risen steadily in the United States since 1970 as illustrated in Fig 4. In 2007, 27,658 unintentional drug overdose deaths occurred in the United States. Drug overdose deaths were second only to motor vehicle crash deaths among leading causes of unintentional injury death in 2007 in the United States. Consequently, rates have increased roughly 5-fold since 1990. Age-adjusted rates of drug overdose deaths for whites have exceeded those among African-Americans since 2003. It has been stated that increasing drug overdose death rates is largely because of prescription opioid painkillers. In 2007, the number of deaths involving opioid analgesics was 9.3 times the number involving cocaine and 5.38 times the number involving heroin. Figure 5 illustrates unintentional drug overdose deaths by major type of drug in the United States from 1999 to 2007. It has been reported that these deaths are secondary to an unusual increase of prescription opioids during the last 20 years which has been over 10-fold because of a movement toward more aggressive management of pain.



Source: National Vital Statistics System

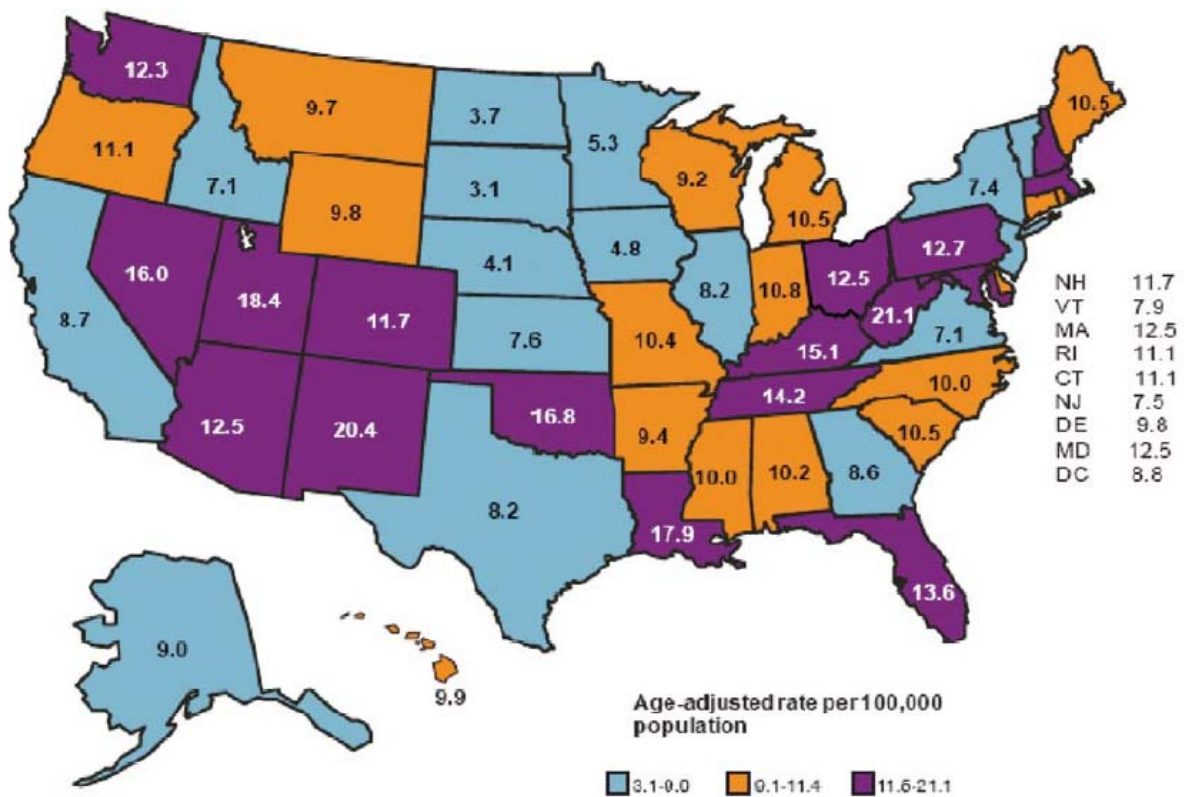
Fig. 4. Rate of unintentional drug overdose deaths in the United States, 1970-2007.



Source: National Vital Statistics System

Fig. 5. Unintentional drug overdose deaths by major type of drug, United States, 1999-2007.

Significant regional variations also have been reported in relations to overall drug overdose death rates. It has been shown that states in the Appalachian region and the Southwest have the highest death rates (Fig. 6). The highest drug overdose death rates was found in West Virginia, which was nearly 7 times that of state with the lowest drug overdose death rate, South Dakota. In 2007, states such as California and New York had some of the lowest overall death rates among all states because of low opioid overdose rates. In contrast, in the early 1990's these states had some of the highest overall rates, largely because of high heroin and cocaine overdose rates.

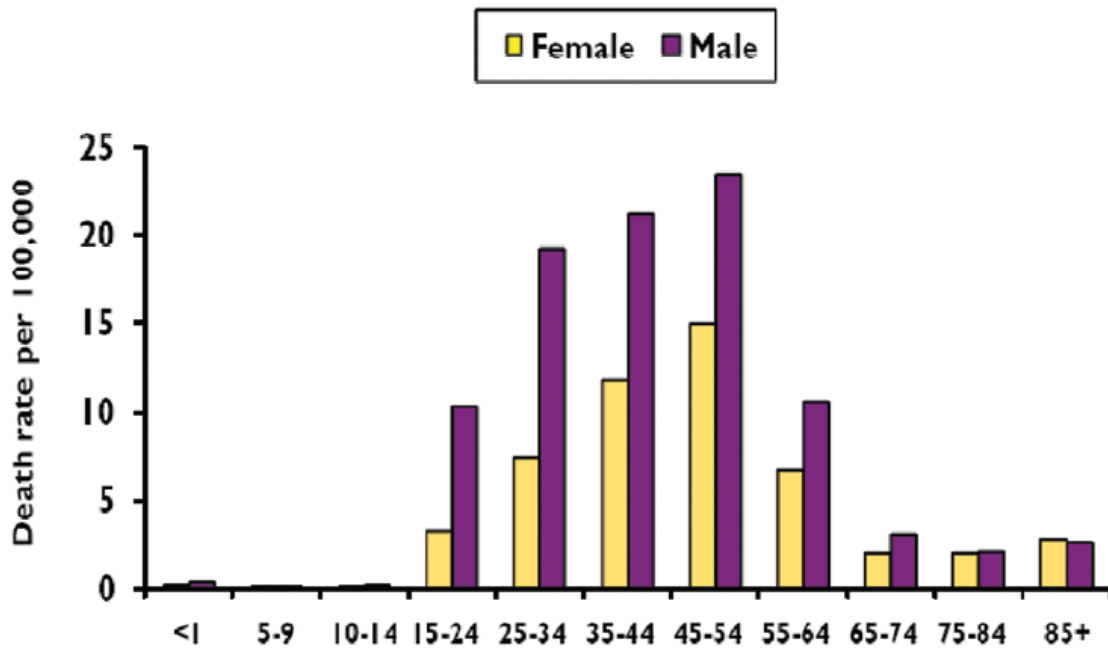


Source: National Vital Statistics System

Fig. 6. Drug overdose death rates by states, 2007.

It also has been demonstrated that men and middle aged people are more likely to die from drug overdosage. In 2007, 18,029 drug overdose deaths occurred among males and 9,626

among females (Fig. 7). Essentially, male rates have doubled and female rates have tripled since 1999. In general, it has been stated that men have historically had higher rates of substance abuse than women.



Source: National Vital Statistics System

Fig. 7. Unintentional drug overdose death rates by sex and age group, United States, 2007.

Further, for both sexes, the highest rates were in the 45 to 54 years old age group with rates declining dramatically after the age of 54. Finally, after age 64, the male and female rates become comparable, probably as a result of the reduction of the rates of substance abuse with age.

4.0 DRUG DIVERSION

Prescription drug ‘diversion,’ defined as the unlawful channeling of regulated pharmaceuticals from legal sources to the illicit market place, has been a topic of widespread commentary, and is of interest to regulators and providers (246). The abuse of many different prescription drugs has been escalating since the early to mid-1990s (246,247). Diversion can occur in many ways, including the illegal sale of prescriptions by physicians, patients and pharmacists, doctor shopping, forgery, robbery and theft. However, it has been shown that the majority of the drugs come from a single physician’s prescription and that family members share it (4). Inciardi et al (246) described diversion as a disorganized for-profit industry. They described it as ‘disorganized’ because there are so many different players involved in the phenomenon, including physicians, pharmacists and other healthcare professionals; drug abusers, patients, students, street dealers and white collar criminals; tourists, saloon keepers and all types of service personnel, to name but a few. Federal agencies maintain that the diverted drugs enter the illegal market primarily through ‘doctor shoppers,’ inappropriate prescribing practices by physicians and improper dispensing by pharmacists (246). Inciardi et al (246) in a study of the mechanisms of prescription drug diversion among drug-involved club- and street-based populations, concluded that while doctor shoppers and the internet receive much of the attention regarding diversion, the data showed there are numerous active street markets involving patients, Medicaid recipients and pharmacists as well. They also suggested that the contributions of residential burglaries, pharmacy robberies and thefts and ‘sneak thefts’ to the diversion problem may have been understated.

In an updated manuscript, Inciardi et al (247) described the results of an ultra-rapid assessment of prescription opioid abuse and diversion in an urban community. They reported that the primary sources of prescription drugs on the street were the elderly, patients with pain and doctor shoppers, as well as pill brokers and dealers who work with all of the former. They also described that the popularity of prescription drugs in the street market was rooted in the abusers' perceptions of these drugs as less stigmatizing, less dangerous and less subject to legal consequences than illicit drugs. Furthermore, they showed that the abuse of prescription opioids also appears to serve as a gateway to heroin use.

In multiple European countries where methadone is not available for prescription use, its abuse is minimal. Further, the oxycodone abuse is also much less than other drugs. Surprisingly buprenorphine was more commonly abuse than methadone and oxycodone in multiple other countries.

5.0 MONITORING OF ABUSE

Misuse, abuse, and diversion should be addressed on 3 fronts.

1. Prescription drug monitoring programs (supply)
2. Screening tools to monitor opioid adherence (demand)
3. Development of Abuse Deterrent Formulations (ADF) of opioids (drugs).

5.1 *Prescription Monitoring Programs*

PMPs collect state-wide data about prescription drugs and track their flow (122,248). There are 3 components of these programs. First is data collection for prescriptions that shows the physicians who wrote them and the pharmacies that dispensed them. Pharmacies are required to report the data by law. Physicians are encouraged to report but are not mandated to do so. Second, there should be a central repository for this data, and lastly there should be a protocol in place describing how this data from the central repository can be made available to appropriate authorities and agencies. To date, 38 states have PMPs, but there is a significant difference in the manner and frequency with which the data is collected.

President George W. Bush signed into law the NASPER in 2005 which was created by ASIPP and enacted by Congress (249). This law requires states to collect prescription information for Schedule II, III, and IV medications. It also requires states to have the capability to share this information with each other. This can decrease cross-border narcotic trafficking. It is heartening to know that this program is now funded by the federal government.

At one point, only 3 states allowed physician's access with physician-friendly programs to monitor drug utilization. These included Kentucky, Utah, and Idaho. Now, with enactment of NASPER and/or other funding from the Harold Rogers Prescription Monitoring Program,

multiple states are operating physician-friendly programs where pain physicians can identify the risk of overuse and abuse (122,248-251).

5.2 *Development of Abuse Deterrent Formulations of Opioids*

The pharmaceutical industry is under growing pressure to develop ADFs of opioids (252). This potentially can curtail abuse but still have opioids readily available for pain management for those who need them. It is imperative that ADFs be developed because opioids are attractive for abuse. The potential for abuse depends on the formulation, route of administration, and rapid rise of plasma concentration resulting in drug liking and reinforcement. Various types of ADFs are being developed, but these do not necessarily decrease abuse in those who will consume the drug intact. Some ADFs employ physical barriers that resist common methods of tampering like crushing the pill and subjecting the pill to various chemical manipulations to extract active ingredients so that they can be snorted or chewed. A combination of opioid agonists and opioid antagonists have been tried. One such example is Talwin, but it also decreases its efficacy to treat moderate pain. Another ADF is a prodrug that needs to be metabolized to an active form after ingestion to produce an analgesic action. It incorporates aversive stimulants like niacin or capsaicin. If the drug is tampered with before ingestion, the aversive stimulants are released, producing an uncomfortable physical sensation. Manufacture of ADFs also can increase the manufacturing cost of the opioids. In the long run though, it might be economical if the ADFs can change the pattern of behavior associated with abuse of prescription opioids, thereby decreasing the consequences and associated medical costs as well as death. ADFs can also make the active ingredient less accessible and less attractive for those who would like to use the drug by an alternate route.

5.3 *Urine Drug Testing*

There are a variety of biological specimens used in performing laboratory drug testing (e.g., urine, blood, sweat, saliva, hair, and nails). Each provides differing levels of specificity, sensitivity, and accuracy. No single instrument or assessment method has universal predictive utility because there could be multiple reasons and factors involved in drug abuse and/or misuse. However, urine drug testing (UDT) is regarded as the gold standard. This is primarily because urinary tests allow for the presence or absence of certain drugs to be evaluated with good specificity, sensitivity, ease of administration, and cost (253). Urine drug concentrations and metabolites also tend to be high in urine, allowing longer detection times than serum concentrations (254). However, debate continues regarding the clinical value of UDT, partly because most current methods are designed for, or adapted from, forensic or occupational deterrent-based testing for illicit drug use and are not entirely optimal for applications in the chronic pain management setting (253). Yet, with appropriate consideration of the caveats against misinterpretation (arising from limits of specificity, and/or false-positive or false-negative screens), UDT can be a useful tool to aid in both the ability to evaluate patients' compliance with prescribed regimens of controlled substances, and to diagnose the misuse or abuse of prescribed drugs or use of illicit agents. However, UDT has been used, misused, and abused due to financial incentives, and the influence of medical licensure boards, the Drug Enforcement Agency (DEA), and other governmental agencies (242,253,255-259). UDT is most commonly used for 2 purposes: ensuring compliance by patients who are using the prescribed opioid(s), and monitoring the use of non-prescribed or illicit substances in the population receiving opioid therapy for chronic pain (260).

In the therapeutic phase of chronic pain management, either during the initiation, titration, or maintenance of opioid treatment, UDT can be useful in detecting non-compliance, unauthorized drug use, doctor shopping, and diversion. Multiple investigators have studied the importance of UDT and adherence monitoring. They found positive evidence for reducing prescription drug abuse, as well as illicit drug use (66).

There is no evidence to guide physicians on identifying chronic pain patients who should have UDT and how often. Multiple descriptions have been provided. Some recommendations include patients' risks for opioid misuse and addiction and aberrant drug-related behaviors.

A practical approach would include baseline drug testing, if appropriate; initiation of opioid therapy and compliance monitoring within one to 3 months after baseline monitoring; and routine, random monitoring approximately every 6-12 months or so, with provision for monitoring for unexpected results, complaints, or behavior patterns.

Thus, the majority of patients will receive a baseline test, initiation of the compliance test, and one year monitoring within the first 15 months or so. After that, if the patient is continuing with a pain management program, testing will only be required once a year. However, patients with abnormal results will require more frequent testing based on the results and the philosophy of the prescribing physician.

An algorithmic steps in UDT in chronic pain are described in Figure 8.

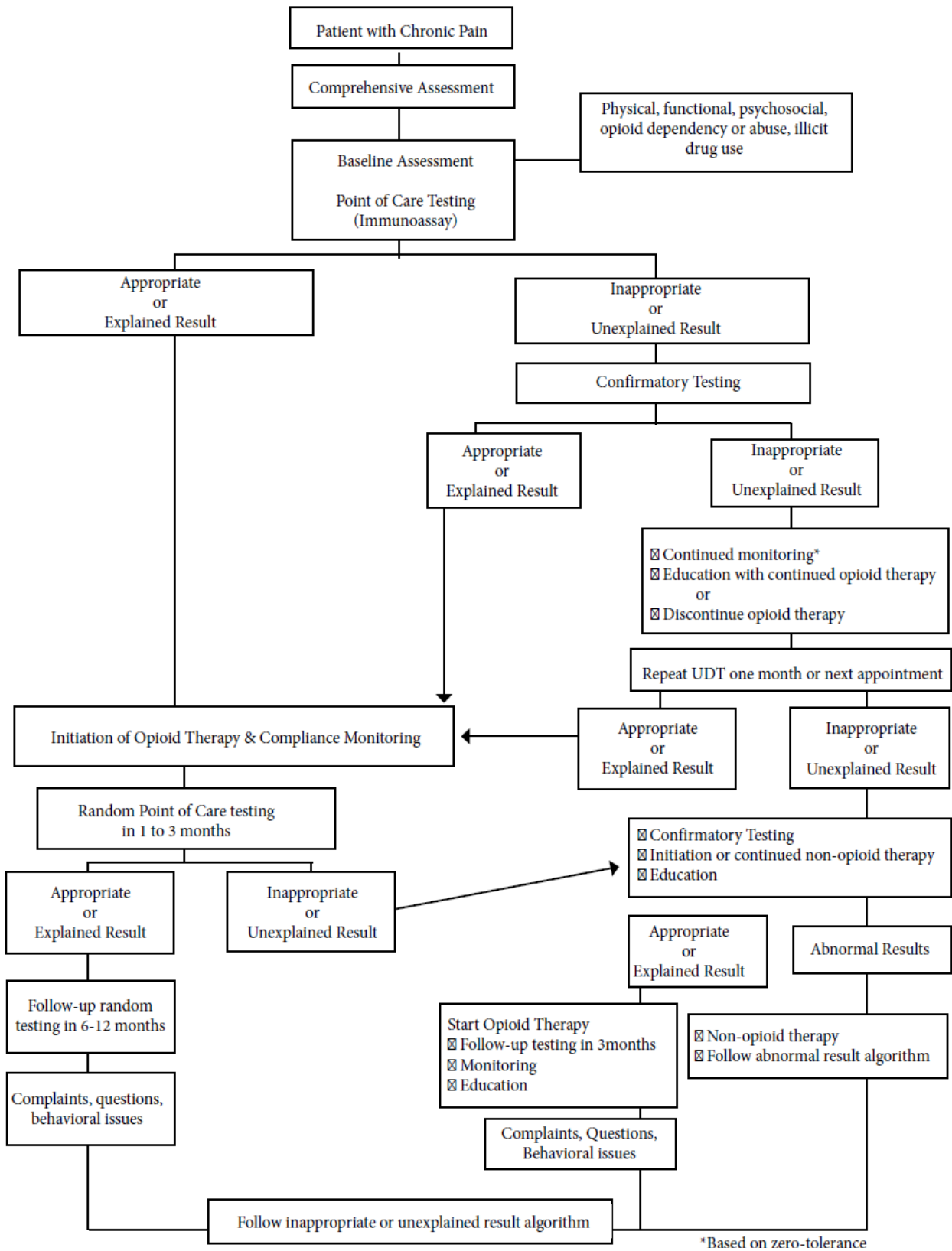


Fig. 8. Algorithmic steps in urine drug testing in chronic pain.

6.0 STEPS IN PRESCRIBING OPIOIDS

Table 1 Illustrates an algorithmic approach for long-term opioid therapy in chronic pain with a ten-step process that includes initial evaluation, establishment of the diagnosis, establishing medical necessity for opioids, assessing the risk–benefit ratio, establishing treatment goals, informed consent and agreement, initial dose adjustment, maintenance in the stable phase, adherence monitoring and assessment of outcomes.

Table 1. *Ten-step process: An algorithmic approach for long-term opioid therapy in chronic pain.*

STEP I	Comprehensive initial evaluation
STEP II	<p>Establish diagnosis</p> <ul style="list-style-type: none"> ◆ X-rays, MRI, CT, neuro-physiologic studies ◆ Psychological evaluation ◆ Precision diagnostic interventions
STEP III	<p>Establish medical necessity (lack of progress or as supplemental therapy)</p> <ul style="list-style-type: none"> ◆ Physical diagnosis ◆ Therapeutic interventional pain management ◆ Physical modalities ◆ Behavior therapy
STEP IV	<p>Assess risk-benefit ratio</p> <ul style="list-style-type: none"> ◆ Treatment is beneficial
STEP V	Establish treatment goals
STEP VI	Obtain informed consent and agreement
STEP VII	<p>Initial dose adjustment phase (up to 8-12 weeks)</p> <ul style="list-style-type: none"> ◆ Start low dose ◆ Utilize opioids, NSAIDs and adjuvants ◆ Discontinue <ul style="list-style-type: none"> ● Lack of analgesia ● Side effects ● Lack of functional improvement
STEP VIII	<p>Stable phase (stable – moderate doses)</p> <ul style="list-style-type: none"> ◆ Monthly refills ◆ Assess for four A's <ul style="list-style-type: none"> ● Analgesia ● Activity ● Aberrant behavior ● Adverse effect ◆ Manage side effects
STEP IX	<p>Adherence monitoring</p> <ul style="list-style-type: none"> ◆ Prescription monitoring programs ◆ Random drug screens ◆ Pill counts
STEP X	<p>Outcomes</p> <ul style="list-style-type: none"> ◆ Successful – continue <ul style="list-style-type: none"> ● Stable doses ● Analgesia, activity ● No abuse, side effects ◆ Failed – discontinue <ul style="list-style-type: none"> ● Dose escalation ● No analgesia

	<ul style="list-style-type: none">• No activity• Abuse• Side effects• Non-compliance
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Theoretically, opioids have no maximum or ceiling dose, but there is little evidence to guide safe and effective prescribing at higher doses and there is no standardized definition of what constitutes a ‘high’ or ‘low’ dose. Chou *et al.*, by panel consensus in the American Pain Society (APS) guidelines, defined high-dose opioid therapy as greater than 200 mg daily of oral morphine or equivalent, based on maximum opioid doses studied in randomized trials and average opioid doses observed in observational studies (261).

Furthermore, multiple arguments may be made with regard to the definition of mild, moderate and high disease. These definitions vary from practitioner to practitioner and guideline to guideline. A conservative approach for a low dose is up to 60 mg of morphine equivalence; a moderate dose is 61–120 mg of morphine equivalence; and a high dose is 121–200 mg of morphine equivalence (212-215,220-222). However, these recommendations vary widely.

Recognizing that many of our patients are already on long-term opioid therapy, steps I, II and III may have already passed. In those cases, if appropriate, acceptable and trustworthy evaluations are available, one may pass steps I–III and go to step IV. However, if reliable information is not available, the patients have to be assessed or re-assessed starting all over again. Finally, the ten-step process provides an exit strategy in step X, rather than maintaining the loop forever.

6.1 Documentation & Medical Records

The physician should keep accurate and complete medical records, which include all aspects of interventional pain management and medical care. These comprise of, but are not limited to:

- ◆ Medical history and physical examination
- ◆ Diagnostic, therapeutic and laboratory results

- ◆ Evaluations and consultations
- ◆ Treatment objectives;
- ◆ Discussion of the risks, benefits and limitations of treatments
- ◆ Details of different treatments and medications, including date, type, dosage and quantity prescribed
- ◆ Instructions to the patient
- ◆ Periodic reviews of outcomes, including documentation of functional status, preferably using validated tools.

Records should remain current and be maintained in an accessible manner and readily available for review, not only for the physician and other members of the practice, but also for authorities.

To be in compliance with controlled substance laws and regulations required to prescribe, dispense or administer controlled substances, the physician must have an active license to practice medicine and comply with applicable regulations. Physicians should not prescribe scheduled drugs for themselves or immediate family, except in emergency situations.

The following criteria should be considered carefully in providing controlled substances:

- ◆ Complete initial evaluation, including history and physical examination;
- ◆ Psychological evaluation;
- ◆ Physiological and functional assessment, as necessary and feasible;
- ◆ Definition of indications and medical necessity:
 - Pain of moderate-to-severe degree
 - Suspected organic problem

- Documentation of failure to respond to noncontrolled substances, adjuvant agents, physical therapy and interventional techniques
 - For patients with interventional techniques as the primary modality, controlled substance drugs may be used as a second-line treatment
 - For nonopioid controlled substances, appropriate documentation of psychological disorders should be maintained
 - Continued opioid prescription requires monitoring of the ‘4 As’:
 - Analgesia
 - Activity
 - Aberrant behavior
 - Adverse effect
- ◆ The use of the lowest possible dose to provide adequate analgesia with minimum side effects should be the goal of opioid therapy;
 - ◆ In general, do not combine opioids with sedative-hypnotics, benzodiazepines or barbiturates for chronic noncancer pain unless there is a specific medical indication for the combination;
 - ◆ Adherence to the controlled substance agreement, with patients understanding the risks and benefits of controlled substances and the policy and regulations of the practitioner, including controlled substances being prescribed by only one practitioner and being obtained from only one pharmacy;
 - ◆ Monitoring for drug abuse or diversion should be routine and, if confirmed, referral to rehabilitation centers may be made, with termination of prescriptions of controlled substances;

- ◆ Use caution when prescribing acetaminophen-containing opioids, especially given the ubiquitousness of acetaminophen in over-the-counter medications. Short-term use (<10 days) should be less than 4000 mg/day, while chronic use should probably be limited to 2500 mg/day.

While there are no universally accepted tools to assess opioid responsiveness, it is important to use a tool that monitors both function and pain relief.

Although opioids may be useful for the treatment of chronic pain, aberrant behavior and/or no improvement in function and pain after an adequate trial of opioids should trigger a consideration to discontinue the opioids, tapered over several weeks to avoid withdrawal symptoms. Evidence of diversion or illegal use warrants an immediate discontinuation of the medication. Clonidine 0.1 mg *per os* or transdermal can be offered to counteract the majority of withdrawal symptoms (3).

7.0 EDUCATION

Education is lacking at all levels primarily for physicians, pharmacists, and the public at large (262,263) and compounded by misinformation. Of 979 physicians surveyed regarding the diversion and abuse of controlled prescription drugs showed the following (262):

Physicians:

- ◆ Physicians perceive the 3 main mechanisms of diversion to be:
 - Doctor shopping (when patients obtain controlled drugs from multiple doctors) (96%)
 - Patient deception or manipulation of doctors (88%)
 - Forged or altered prescriptions (69%).
- ◆ 59% believe that patients account for the bulk of the diversion problem.
- ◆ 47% said that patients often try to pressure them into prescribing a controlled drug.
- ◆ Only 19% of surveyed physicians received any medical school training in identifying prescription drug diversion.
- ◆ Only 40% of surveyed physicians received any training in medical school in identifying prescription drug abuse and addiction.
- ◆ 43% of physicians do not ask about prescription drug abuse when taking a patient's health history.
- ◆ One-third of physicians do not regularly call or obtain records from the patient's previous (or other treating) physician before prescribing controlled drugs on a long-term basis. Health Insurance Portability and Accountability Act (HIPAA) regulations have made this step much more difficult.

- ◆ 74% have refrained from prescribing controlled drugs during the past 12 months because of concern that a patient might become addicted to them.

In a recent study (263) based on questionnaire responses from 248 primary care physicians, published results showed that the most common concerns about prescribing opioids for chronic pain were prescription drug abuse and addiction. Other concerns included: adverse effects, tolerance, interaction with other medications, not knowing enough about which narcotic to prescribe, not knowing enough about dosage requirements, and having partners who prefer not to use opioids for treating chronic pain. The majority of the physicians were comfortable in prescribing narcotics to someone with terminal cancer but less confident in prescribing for patients with back pain. They were even less comfortable with prescribing narcotics to patients with a past history of drug or alcohol abuse. The survey also noted that only a small percentage of physicians are conducting urine toxicology screens on their patients either before or during opioid therapy, and that this was dependent on whether or not they had a system to track patients on opioids.

In two prospective evaluations of 500 patients in each study (52,61) with enhanced monitoring, it was shown that overall prescription controlled drug abuse reduced from 18% to 9%; whereas illicit drug use reduced from 22% to 16%. Significant decreases were observed in Medicaid patients.

Van Rooyan (264) described physician education as follows:

- ◆ The majority of physicians do not know that the long-term safety and effectiveness of opioids for management of non-malignant pain have *not* been substantiated.

- ◆ The majority of physicians do not know that patients seeking pain relief for chronic, non-malignant pain often have underlying psycho-social problems and need psychological or rehabilitation services or would respond well to other non-drug interventions.
- ◆ In busy medical practices, particularly primary care and family practice office settings, often, pain therapy is based not on science, but on intuition or hearsay, and ends up aggravating rather than ameliorating prescription pain medication abuse and addiction.
- ◆ Expansion of opioid therapy for patients who might benefit more from non-drug interventions or alternate drugs, without consideration of the accompanying risks of opioids, is based on pharmaceutical promotion.

Pharmacists fear of being labeled opiophobic by opioid and advocacy lobby.

The National Center of Addiction and Substance Abuse (CASA) survey (262) of 1,303 pharmacists regarding diversion and abuse of controlled prescription drugs showed the following:

- ◆ When a patient presents a prescription for a controlled drug:
 - 78% of pharmacists become “somewhat or very” concerned about diversion or abuse when a patient asks for a controlled drug by its brand name;
 - 27% “somewhat or very often” think it is for purposes of diversion or abuse.
- ◆ 52% believe that patients account for the bulk of the diversion problem.

- ◆ Only about half of the pharmacists surveyed received any training in identifying prescription drug diversion (48%) or abuse or addiction (50%) since pharmacy school.
- ◆ 61% do not regularly ask if the patient is taking any other controlled drugs when dispensing a controlled medication; 25.8% rarely or never do so.
- ◆ 29% have experienced a theft or robbery of controlled drugs at their pharmacy within the last 5 years; 20.9% do not stock certain controlled drugs in order to prevent diversion.
- ◆ 25% do not regularly validate the prescribing physician's DEA number when dispensing controlled drugs; 1 in 10 (10.5%) rarely or never do so.
- ◆ 83% have refused to dispense a controlled drug in the past year because of suspicions of diversion or abuse.

Pharmacists may be involved in prescription drug diversion, first by selling the controlled substances and then, using their database of physicians and patients to write and forge prescriptions to cover their illegal sale.

Patients

Patients also have many concerns about the lack of education. The problem list is long and extensive. A non-inclusive list is as follows:

- ◆ Undertreatment of pain.
- ◆ All patients are under suspicion.
- ◆ The interest in receiving opioids for chronic pain, fueled by advertising by pharmaceutical companies.

- ◆ Unproven, misunderstood regulations of JCAHO and other organizations mandating monitoring and appropriate treatment of pain.
- ◆ Media coverage of undertreatment of pain.
- ◆ Numerous organizations providing advocacy guidelines and standards.
- ◆ Patient advocacy groups advising them to demand more opioids.
- ◆ Very little or no effort on educating the public about non-opioid management.
- ◆ Access to Internet and a daily bombardment of the easy availability of drugs.
- ◆ Patient beliefs that they have the right to total pain relief.
- ◆ The lack of interest on behalf of the patients to understand deleterious effects of opioids and benefits of non-opioid techniques.

As described in the recent document on responding to America's Prescription Drug Abuse Crisis from the White House a Crucial first step in taking the problem of prescription drug abuse is to raise awareness through the education of parents, youth, patients, and health care providers.

A crucial first step in tackling the problem of prescription drug abuse is to raise awareness through the education of parents, youth, patients, and healthcare providers. Although there have been great strides in raising awareness about the dangers of using illegal drugs, many people are still not aware that the misuse or abuse of prescription drugs can be as dangerous as the use of illegal drugs, leading to addiction and even death.

In addition, prescribers and dispensers, including physicians, physicians assistants, nurse practitioners, pharmacists, nurses, prescribing psychologists, and dentists, all have a role to play in reducing prescription drug misuse and abuse. Most receive little training on the importance of appropriate prescribing and dispensing of opioids to prevent adverse effects, diversion, and

addiction. Outside of specialty addiction treatment programs, most healthcare providers have received minimal training in how to recognize substance abuse in their patients. Most medical, dental, pharmacy, and other health professional schools do not provide in-depth training on substance abuse; often, substance abuse education is limited to classroom or clinical electives. Moreover, students in these schools may only receive limited training on treating pain.

A national survey of medical residency programs in 2000 found that, of the programs studied, only 56 percent required substance use disorder training, and the number of curricular hours in the required programs varied between 3 to 12 hours (265). A 2008 follow-up survey found that some progress has been made to improve medical school, residency, and post-residency substance abuse education; however, these efforts have not been uniformly applied in all residency programs or medical schools (266).

7.1 Health Care Provider Education

Comprehensiveness must be provided starting with medical school, residency programs, and with assessment of knowledge in practice as condition for DEA license for prescription of Schedule II and III drugs. This training also should include assessing and addressing the assessment of symptoms and signs of abuse and/or dependence.

Thank you for providing us with this opportunity. If you have any further questions, please feel free to contact us.



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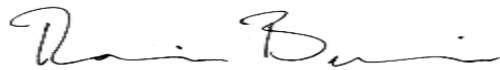
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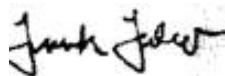
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