

USE, ABUSE, MISUSE, AND DISPOSAL OF PRESCRIPTION PAIN MEDICATION TIME TOOL

A Resource from the American College of Preventive Medicine

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CLINICAL REFERENCE

The following Clinical Reference Document provides the evidence to support the [Use, Abuse, Misuse, and Disposal of Prescription Pain Medication Time Tool](#). The following bookmarks are available to move around the Clinical Reference Document. You may also [download a printable version](#) for future reference.

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1. INTRODUCTION - THE RIGHT TO PAIN CONTROL

Adequate pain control is a fundamental right of every patient [1]. A consensus statement from 21 Health Organizations and the Drug Enforcement Agency (DEA) conclude that "Effective pain management is an integral and important aspect of quality medical care, and pain should be treated aggressively... Preventing drug abuse is an important societal goal, but it should not hinder patients' ability to receive the care they need and deserve." [2]

The consequences of not treating pain are significant [1][3] and confer a tremendous economic impact [4]. Post-surgical pain increases heart rate, systemic vascular resistance, and circulating catecholamines, placing patients at risk of heart attack, stroke, bleeding, and other complications. Unrelieved acute pain often evolves into chronic pain syndromes, which are linked to a constellation of maladaptive physiological, psychological, family, and social consequences that result in:

- Reduced mobility; loss of strength
- Disturbed sleep
- Decreased healing due to immune system impairment
- Increased susceptibility to disease
- Dependence on medication
- Codependence with family members or care givers
- Psychological ramifications (depression, anxiety, social withdrawal)
- Slower return to function
- Decreased quality of life

2. UNIVERSAL CHALLENGE

Physicians are currently challenged to deal with the “perfect storm”—a confluence of pain control versus risk of misuse and abuse of prescription medications [5].

This perfect storm is co-incident with the more general rise in unintended overdose deaths that may have resulted from aggressive efforts to have physicians treat pain without the education, skill and resources to manage the physiological and psychological complications that can arise when treating a patient for a chronic pain condition. Physicians must be able to safely and effectively prescribe scheduled drugs and, at the same time, must identify and manage misuse and abuse in their practices [6]. Ethics drive physicians to prescribe, but fear of sanctions may affect physician prescribing behaviors, which might compromise quality of care. The problem cannot be ignored because abusers often face complications, such as: [7]

- Overdoses
- Addiction and dependence
- Adverse effects
- Social and family dysfunction
- Criminal consequences

The universal challenge is to adequately control pain, having a variety of etiologies, in an environment where evidenced-based medicine is lacking or in conflict, while identifying and managing high risk situations, and possibly treating addictions resulting from initial pain control efforts. Physicians confront the dilemma of balancing pain relief against the reality that some patients may misuse and divert these medications. The scale weighs public health priorities against individual pain and suffering [8].

3. CLARIFYING TERMINOLOGY

One of the major difficulties in promulgating information regarding pain therapy and its use, misuse, and abuse, is the lack of consensus on terminology and an understanding and proper use of the terminology among clinicians, patients, pharmacists, insurers, diagnostic coding agencies, medical societies, regulators, government agencies, and pharmaceutical manufacturers [9][10]. While inaccurate, more than half of family physicians believe that the use of long-acting opioids for patients with moderate to severe chronic nonmalignant pain leads to addiction [11]. In order to understand the nuances surrounding non-medical use of prescription medications, the following definitions are supplied.

Abuse: Self-administration of medications to alter one’s state of consciousness (“get high”) [12]. This is an intentional, maladaptive pattern of use of a medication (whether legitimately prescribed or not) leading to significant impairment or distress—such as repeated failure to fulfill role obligations, recurrent use in situations in which it is physically hazardous, multiple legal problems, and recurrent social and interpersonal problems—occurring over a 12-month period [11].

Addiction: A primary, chronic, neurobiological disease, with genetic, psychologic, and environmental factors influencing its development and manifestations. Addiction is characterized by the 4 C’s—behaviors that include one or more of the following: impaired control over drug use, compulsive use, continued use despite harm, and craving [11][6]

Chemical coping: Reliance on a drug for psychological stability [13].

Diversión: Redirection of a prescription drug from its lawful purpose to illicit use; can be done with criminal intent [13].

Drug poisoning: Exposure to a natural or manmade substance that has an undesirable effect, often fatal; includes drug overdoses resulting from misuse or abuse. In the U.S., drug overdose

deaths were second only to motor vehicle crash deaths among leading causes of unintentional injury death in 2007 [14].

Misuse (noncompliant use): The intentional or unintentional use of a prescribed medication in a manner that is contrary to directions, regardless of whether a harmful outcome occurs [11]. Misuse can be grouped into several categories: [6]

- Not taking the medication according to the prescription
- Unsanctioned use (running out early; bingeing)
- Altering the route of delivery (injecting, crushing tablets, snorting, chewing)
- Accessing drugs from other sources (friend, the street, other doctors)
- Drug-seeking behavior (anger, harassing office staff for fit-in appointments)
- Reluctance to use other methods of pain management

Non-medical use (prescription drug abuse, illicit use): Intentional or unintentional use of legitimately prescribed medication in an unprescribed manner for its psychic effect (either experimentation or recreationally), deciding to increase the dose of one's own medication, unknowingly taking a larger dose than directed, engaging in a suicidal attempt or gesture, and inadvertent poisoning. The non-medical use of prescription medications implies that the person is using the drug for reasons other than those indicated in the prescribing literature or other off-label uses prescribed by a clinician [15]. Nonmedical use includes procurement of drugs for abuse, bartering, suicide, homicide, or accidental ingestion [15]. This *Time Tool* focuses on abuse.

Pharming: Coined by teenagers, "pharming" is the term used to describe raiding the medicine closet for prescription medicines, popularly known as "pilz." At "pharm" parties, various prescription drugs are tossed together in a big bowl of "trail mix" and consumed by the handful [16].

Physical dependence: A state of adaptation manifested by a drug class-specific withdrawal syndrome that occurs by abrupt cessation of a drug, rapid dose reduction, decreasing levels of the drug in the blood, and/or administration of an antagonist resulting in dysphoric signs and symptoms generally the opposite of the desired drug effect, and tolerance defined by adaptation so that that increasing doses of a drug is needed to achieve the same desired effect [11]. Physical dependence involves the related phenomenon of withdrawal and tolerance [6].

Prescription medications: Pharmaceuticals dispensed by a pharmacist on the presentation of a prescription written by a physician, dentist, or other health care provider who is legally authorized to write prescriptions [15].

Pseudoaddiction: Occurs when patients with inadequately treated pain exhibit drug-seeking behavior similar to that of addiction. This behavior resolves with reasonable dose increases as opposed to "out of control" or "compulsive" use reflecting addictive drug-seeking behavior which remains the same or worsens [6].

Self-medication: Use of a drug without consulting a health care professional to alleviate stressors or disorders such as depression and anxiety [13].

Substance Use Disorder (SUD): A condition involving the intoxication, withdrawal, abuse or dependence upon, a substance with defined abuse or dependence potential, including alcohol, meeting the criteria for clinical diagnosis delineated by the current Diagnostic and Statistical Manual (DSM) and/or the current International Classification of Diseases (ICD).

Tolerance: A state of adaptation in which exposure to a given dose of a drug induces changes that result in diminution of one or more of the drug's effects over time [11].

Withdrawal: A variety of unpleasant symptoms (e.g., difficulty concentrating, irritability, anxiety, anger, depressed mood, sleep disturbance, and craving) that occur after use of an addictive drug is reduced or stopped. Withdrawal symptoms are thought to increase the risk for relapse.

4. PREVALENCE OF MISUSE AND ABUSE

The past two decades have witnessed an expansion of analgesic use, especially opioid use for patients who have chronic noncancer pain. The National Center on Addiction and Substance Abuse (CASA) found that from 1992 to 2002 the number of prescriptions for controlled drugs increased 154.3% compared to 56.6% for non-controlled drugs during a time when the US population only rose 13% [17]. Concurrently, analgesic misuse has also increased dramatically [8]. According to the latest National Survey on Drug Use and Health (NSDUH) sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA), the primary source of information on the use of illicit drugs by persons over age 12 in the U.S., the non-medical use of prescription psychotherapeutics now surpasses the total illicit use of cocaine, hallucinogens, inhalants and heroin as the leading drugs of abuse (Figure 1). Psychotherapeutics are second only to marijuana in abuse potential. In 2009, an estimated 7 million people (2.8%) used psychotherapeutics non-medically each month [18]. This figure has remained relatively steady since 2002 [18].

7 Million People Abuse/Misuse Prescription Drugs Every Month

- Pain relievers, 5.3 million
- Tranquilizers 2.0 million
- Stimulants 1.3 million
- Sedatives 0.4 million

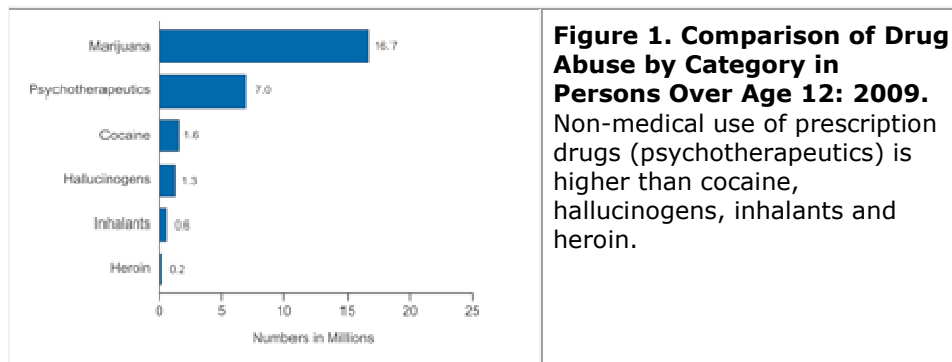


Figure 1. Comparison of Drug Abuse by Category in Persons Over Age 12: 2009. Non-medical use of prescription drugs (psychotherapeutics) is higher than cocaine, hallucinogens, inhalants and heroin.

Of the psychotherapeutics, pain relievers are the most commonly misused or abused drug class (Figure 2) [18]. The category of pain relievers comprises approximately 30 separate medications, including scheduled opioid analgesics (fentanyl, hydrocodone-combinations products, methadone, morphine, oxycodone, and oxycodone-combination products, and propoxyphene) and nonscheduled drugs such as tramadol [11]. The National Institute on Drug Abuse provides a *Prescription Drug Abuse Chart* found at <http://www.nida.nih.gov/DrugPages/PrescripDrugsChart.html> listing substance categories, examples of commercial and street names, DEA schedule, administration route, and intoxication effects/consequences, which may be helpful during patient consults.

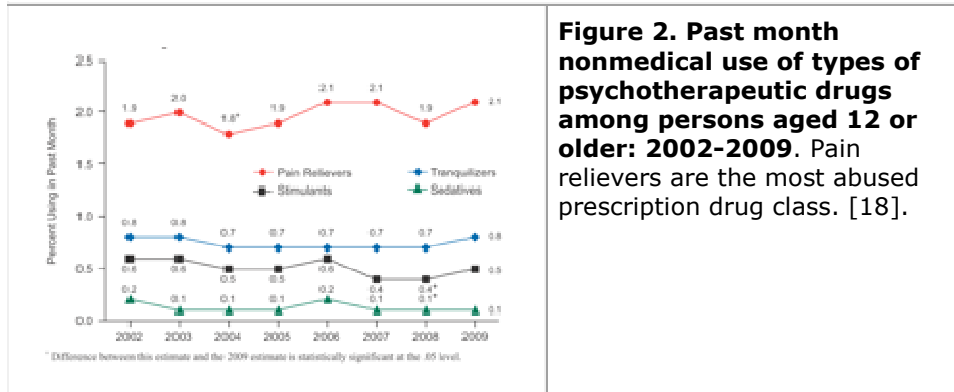


Figure 2. Past month nonmedical use of types of psychotherapeutic drugs among persons aged 12 or older: 2002-2009. Pain relievers are the most abused prescription drug class. [18].

In 2009, the NSDUH estimated that 2.2 million persons (aged 12 or older) used psychotherapeutics non-medically for the first time within the past year (Figure 3). This equates to about 7,000 initiates per day. Pain Relievers are a close second to marijuana as a choice of first initiate for non-medical drug use.

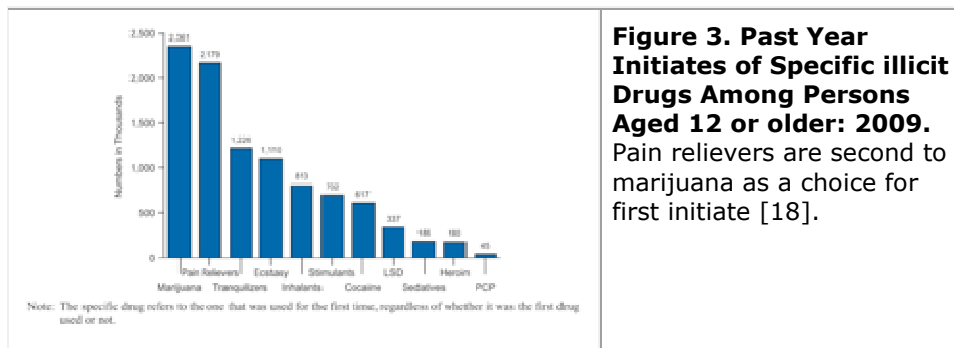


Figure 3. Past Year Initiates of Specific Illicit Drugs Among Persons Aged 12 or older: 2009. Pain relievers are second to marijuana as a choice for first initiate [18].

Keep in mind that prevalence of prescription use, misuse, and abuse varies among clinical settings and by definition of misuse or abuse. True prevalence is unknown but appears to be increasing. The U.S. Drug Abuse Warning Network (DAWN) reported a 7-fold increase in oxycodone-related emergency department visits from 1996 to 2002 [6]. One study estimated that among 10.89 million individuals projected to have used prescription opioids nonmedically, a minimum of 430.61 million doses were used nonmedically per year which represents 1/25th of all prescription opioids dispensed [19].

Pain Patients. Opioids are the most abused drugs in the chronic pain setting [20]. The prevalence of lifetime substance use disorders ranges from 36% to 56% in patients treated with opioids for chronic back pain; 43% of this population has current substance use disorder (SUD) and 5% to 24% have aberrant medication-taking behaviors. About 14% to 16% of pain patients not having SUD use illicit drugs in combination with prescription drugs for pain, while 34% of patients with SUD combine legal pain medication with illicit drug use [20]. These statistics highlight the difficult situation of balancing pain treatment with abuse management. Studies show that increased monitoring of these situations does indeed decrease controlled substance abuse and illicit drug use.

Teens. Our adolescents are at high risk. Substance use before age 18 is associated with an 8-fold likelihood of developing substance dependence in adulthood [21]. While illicit drug abuse is declining in this group prescription drug abuse is climbing [22]

- In 2006, 2.2 million teens reported nonmedical use of a prescription drug in the past year [23]
- Nearly 1 in 10 high school seniors reported nonmedical use of Vicodin
- About 1 in 20 abuse Oxycontin
- Prescription and OTC medications account for 8 of the 14 most frequently abused drugs by high school seniors [24].
- Teens say prescription drugs are easier to obtain than illicit drugs and 52% believe prescription narcotics are available everywhere [23].
- College campuses are especially high-risk environments for the non-medical abuse and diversion of prescription medications; 9.4% of students abuse pain medications prescribed to them and 13.4% of students have been approached to divert their pain medication. Peer pressure is highest for prescription stimulants (54%) followed by prescription pain medications (26%), sedatives or anxiolytics (19%) and sleep medications (14%) [25].

Women. Women represent a large and growing population of prescription abusers and women have a higher risk than men based on biological differences, more psychiatric problems (depression, anxiety), and higher rates of physical, emotional or sexual abuse [26]. Adolescent girls and women use drugs to cope with stressful situations, while men tend to use alcohol. Women are more likely than men to be prescribed a drug with abuse potential, such as narcotics or anti-anxiety medications [22]. Prevention and intervention efforts with a gender-specific approach are warranted.

Elderly. The elderly are very susceptible to pain medication misuse/abuse. The elderly make up 13% of the population but receive one-third of all prescribed medications [22]. The elderly tend to have more chronic, long-term pain issues, tend to use multiple medications due to other comorbid medical conditions (especially dietary supplements and OTC medications), and may be experiencing waning cognition, making them susceptible to unintentional misuse or abuse. Drug metabolism changes with age, predisposing the elderly to more toxic effects of all medications. Chronic pain is by far the most common reason for nonmedical use of prescription pain medications later in life [27]. The age range most at risk appear to be ages 50 to 64, which does not correspond to the peak of chronic pain in the elderly, which is age 65. Physicians treating older adults should be aware of these trends [27].

Medicaid. Patients covered by Medicaid are more likely to receive prescription drugs for low back pain (Figure 4). In a one study, 73% of Medicaid patients received an opioid compared to 43% of patients with commercial insurance. Higher usage was also reported for NSAIDs (56% vs. 36%) and Cox-2 inhibitors (11% vs. 6%) [28, 29]. This population also visits the emergency department more often than non-Medicaid patients.

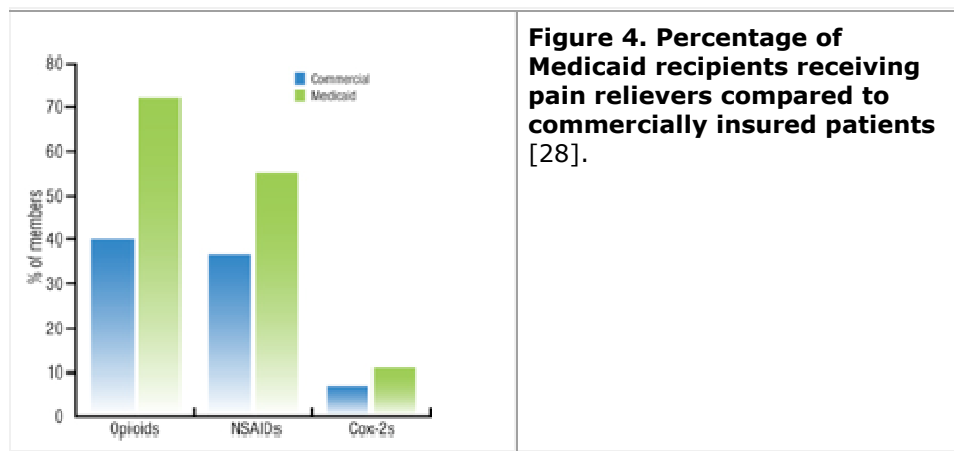


Figure 4. Percentage of Medicaid recipients receiving pain relievers compared to commercially insured patients [28].

Hospitalizations. From 1999 to 2006, the number of people hospitalized for prescription drug overdose has increased 37% [17].

Deaths. Deaths from unintentional drug overdoses have been rising steeply since 1990 [30]; rates have increased roughly five-fold [14]. In 2007, there were 27,658 unintentional drug overdose deaths in the United States. The number involving opioid analgesics was 1.93 times the number involving cocaine and 5.38 times the number involving heroin. Overdose deaths have now overtaken the annual number of automotive crash fatalities in 16 states and are more than double the annual number of murders nationwide. [17]. Clearly, there is a widespread problem of epidemic proportions [17,10].

5. USE/ABUSE TRENDS

There are many factors suspected of causing an increase in diversion of prescription drugs, which include: [22]

- Increased advertising and advocacy
- Easy access and availability
- Stronger motivations to get high (such as to deal with problems, work harder and longer)
- Safety perception that prescription drugs are less harmful than illicit street drugs
- Normalization of abuse of prescription drugs in teen culture
- Limited liability
- Lack of education
- High street value

Lessenger and colleagues provide the following list of use and abuse trends to help physicians identify prescription abuse [15],

Use of prescription drugs falls into these categories:

- For legitimate, prescribed medical treatment; for example, methamphetamines for narcolepsy and opiates for severe trauma
- As an additional drug to use when the drug of choice is unavailable on the streets
- As a booster for a more intense high
- As an alternative addictive drug when their drug of choice has been eliminated from use by drug testing
- As an alternative addictive drug prescribed by physicians; for example, amphetamines in diet clinics; these prescriptions may be issued either naively by the physician or for profit

According to DAWN data, people who abuse prescription drugs tend to:

- Be white
- Be younger (when stimulants are the drug of choice)
- Use opiates
- Be women; women tend to use tranquilizers and sedatives
- Mix their medications with alcohol
- Use prescription and OTC medication in conjunction with alcohol as a vehicle for suicide
- Obtain the prescription medication by prescription from their physicians or dentists, as gifts from friends, or purchase them on the black market

6. ECONOMIC BURDEN

Close to half a trillion U.S. dollars are spent on expenses associated with medical, economic, social, and the criminal impact caused by the use and abuse of addictive substances [31]. In 2002, abuse of prescription drugs costs were nearly \$181 billion [22]. A significant amount of these dollars are attributed to opioid abuse (Figure 5) [32]. The total average per patient direct health care payer cost for opioid abusers was \$15,884 compared with \$1,830 for nonabusers a difference of \$14,054 per patient. These costs include substance abuse treatment and comorbidity costs such as pancreatitis or hepatitis. The immeasurable indirect costs include drug theft, the commission of crimes to support addiction, doctor shopping, loss of productivity and wages, and the administration of law enforcement [22].

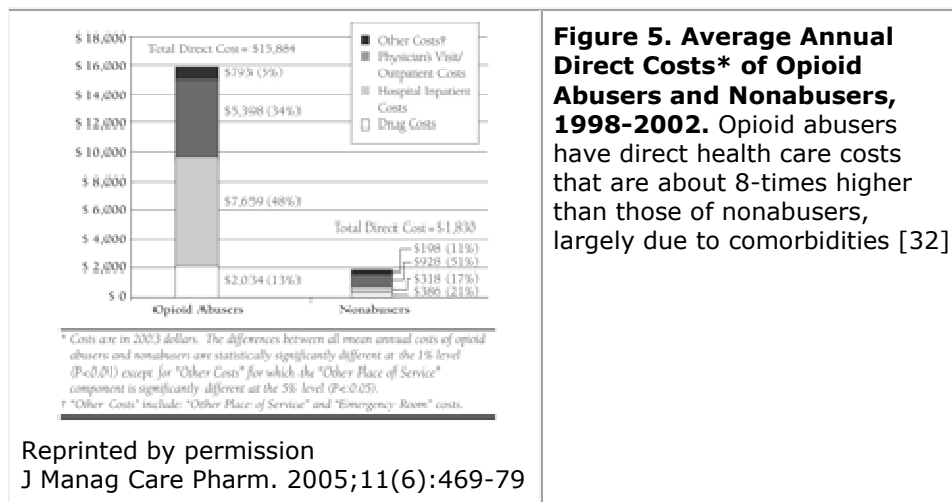


Figure 5. Average Annual Direct Costs* of Opioid Abusers and Nonabusers, 1998-2002. Opioid abusers have direct health care costs that are about 8-times higher than those of nonabusers, largely due to comorbidities [32]

7. REGULATOR INITIATIVES

With a prescription drug abuse epidemic so large and so widespread, federal, state, and local governments, as well as professional associations and pharmaceutical companies have attempted to provide solutions using tools such as: [29]

- **FDA approval** of drugs as safe and efficacious with precautionary "black box" warnings on drugs to alert and educate health care practitioners and the public regarding the abuse potential of various medications
- **FDA initiatives** including its "Safe Use Initiative" to reduce preventable harm by identifying specific, preventable medication risks and developing, implementing and evaluating cross-sector interventions with partners who are committed to safe medication use [33]
- **Drug schedules** were adopted in 1970 when the Controlled Substance Act was passed by Congress to regulate the manufacture, transportation, possession, use, and distribution of drugs that have a potential for abuse. Drugs fall into 5 classifications or schedules. The DEA has a published list at <http://www.justice.gov/dea/pubs/scheduling.html>
- **Refill limits** allow physicians to periodically monitor a patient's disease course, particularly during long-term therapy as an aid to detection of tolerance, drug interactions, compliance, misuse or abuse
- **State laws** governed by oversight boards, license, disciplinary actions, and/or sanctions focus on the problem of prescription abuse
- **Internet control** by increased DEA monitoring of internet prescription drug sales. Weak "online consultations" and no prescription requirements, or faxing of prescriptions which can easily be forged, makes these sites targets for drug diversion
- **PDM** or prescription drug monitoring programs collect information to be shared with law enforcement agencies, health care and regulatory agencies, and practitioners to help identify inappropriate or illegal use of controlled prescription drugs. In some cases, PDMs create fear in the prescriber community regarding sanctions, which can lead to under

treatment of pain. Nevertheless, many states find success with these types of programs noted by the reduced rate of drug diversion [34].

- **Abuse deterrent formulations** are newer compounds with altered pharmacokinetic profiles that make it difficult to extract the active ingredient out of a controlled drug rendering it useless for alternate routes of administration such as injection, snorting, or smoking [12][35].
- **“Take Back” programs** and sites have been made available and can be found by visiting www.dea.gov

8. PRESCRIBER'S ROLE

Primary care providers have an important role in the identification of prescription drug abuse as 70% of Americans visit their primary care doctor at least once every 2 years [25]. In any prescription pain reliever abuse situation there are at minimal 2 parties involved: (1) the physician who either knowingly or naively prescribes pain relievers to a person who is faking pain and (2) the person who fakes or exaggerates pain to get a prescription [15]. Since it is difficult to control patient behavior, one key solution to this epidemic lies with the prescriber. Primary care physicians are well poised to recognize substance use in their patients and to take steps to address the issue before use escalates [21]. However, less than 40% of physicians receive training in medical school to identify prescription drug abuse or recognize the warning signs of drug diversion [22]. Nationally, more than 40% of primary care physicians report difficulty in discussing the possibility of prescription medication abuse with patients and more than 90% fail to detect symptoms of substance abuse [36].

Lack of knowledge regarding the “wiles” of prescription abuse puts control into the patient’s hand. Professionals who prescribe or work around controlled substances are also at risk of abusing readily available medications. Unfortunately, some prescribers contribute to the problem by dealing or by personal addiction. A review of Table 1 (below) helps classify prescribers into one of 4 categories associated with the problem of prescription misuse and abuse [22]. These 4 D’s were sanctioned by the American Medical Association (AMA) at a White House Conference on Prescription Drug abuse in 1980 and have since been adopted as a categorization of physician mis-prescribers and the official stance of the AMA [37, 38].

Table 1. The 4D’s of Prescriber Involvement In Prescription Abuse

Deficient (Dated Practitioner)

- Too busy to keep up with CME
- Unaware of controlled drug categories
- Only aware of a few treatments or medications for pain
- Prescribes for friends or family without a patient record
- Unaware of symptoms of addiction
- Remains isolated from peers
- Only education is from drug representatives

Duped

- Always assumes the best about his patients and is gullible
- Leaves script pads lying around
- Falls for hydrophilic medicine excuse—fell into the toilet or sink
- Patients only want specific medications (i.e., OxyContin or Percocet)
- Co-dependent—cannot tell patients “NO” when they ask for narcotics

Deliberate (Dealing)

- Practitioner becomes a mercenary
- Sells drugs for money, sex, street drugs, etc.
- Office becomes a pill factory—full of drug seekers
- Prescribes for known addicts who will likely sell drugs to others

Drug Dependent (Addict)

- Starts by taking controlled drug samples
- Asks staff to pick up medications in their names
- Uses another prescribers' DEA number
- Calls in scripts in names of family members or fictitious patients and picks them up himself

9. PHYSICIAN STRATEGIES

Pain is often undertreated because of the real or perceived barriers to appropriate prescribing. There is conflicting evidence on pain treatment, dual conflicting roles for prescribers, and a tense regulatory environment. Every day, physicians have to consider: [22]

- Litigation for failure to treat pain or for under treatment of pain
- Criminal charges for abuse, addiction or death
- Numerous federal guidelines and their implications
- Investigations or action by State Board of Medical Examiners, DEA, State Bureau of Narcotics,
- Complaints by pharmacies

Refusing to prescribe scheduled drugs is not an option for most practices. Surrendering a Schedule II DEA license can potentially cause the loss of patients and hospital privileges. Following the strategies below will help prescribers maintain the desired balance of appropriate prescribing, identifying and helping patients at risk for misuse, while protecting the practice from abusers.

FERRETING OUT DIVERSION TACTICS

To keep from being “duped” it is important to be aware of how people obtain prescription drugs (Figure 6) [15], and to understand the various mechanisms of drug diversion to employ strategies to thwart them, as delineated below [7][39]

- **Doctor shopping** is searching for a cooperative professional who will willingly prescribe and/or visiting multiple physicians to simply procure drugs for personal use or sale. Doctor shopping is one of the most common methods of obtaining prescription drugs and most physicians think this is the major mechanism of diversion. Doctor shoppers target physicians who readily dispense prescriptions without a thorough examination or screening.
 - Communicate with other providers and pharmacies when shopping is suspected
 - Provide better record keeping for controlled substance prescribing
 - Employ electronic medical records integrated between pharmacies, hospitals, and managed care organizations
 - Periodically request a report from your state prescription drug monitoring program on the prescribing of opioids to your patients by other providers [14]
- **Deception** occurs when patients purposely fake pain or exaggerate pain severity
 - Employ more careful scrutiny during patient encounters. Do a thorough history and first rate physical examination to determine the cause of pain [40]
 - Inquire about prescription, OTC, and illicit drug use

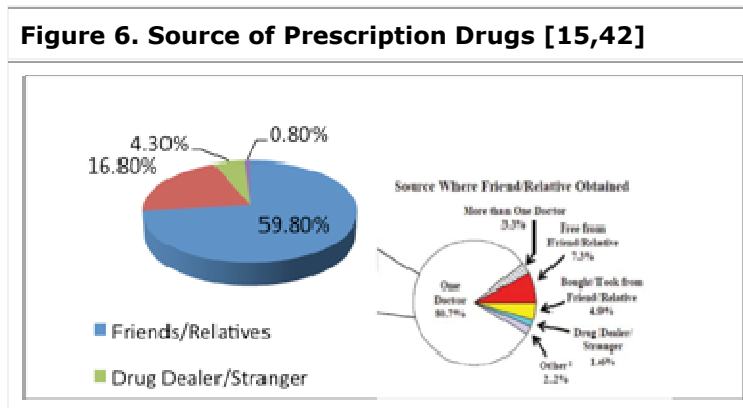
- **Forged or altered prescriptions** bypass the protection system and are difficult to detect.
 - Use triplicate copies of prescriptions
 - Don't leave prescription pads or computer prescription paper out in the open
- **Corrupt physicians** often sell drugs for money or divert drugs for their own use.
 - Don't contribute to drug diversion and report known abusers [41]
 - Seek help if you are the offender
- **Drug theft** includes patients who steal drugs as well as physicians who steal drugs from their patients. Theft is on the rise due to the high price of street drugs (See Table 2 below).
 - Keep samples in a locked cabinet
 - Report known abuses
 - Seek help if you are the offender

Table 2. Common Prescription Drugs of Abuse and Street Value [29]

| Generic Name | Brand Name | Street Names | Brand cost per pill | Street Value per pill |
|--------------------------------|-------------------|--|---------------------|-----------------------|
| Acetaminophen w/ Codeine 30 mg | Tylenol #3 | T-three's, School boy, Cough Syrup | \$ 5.64 | \$ 8.00 |
| Diazepam 10 mg | Valium | Vs Blues, Drunk pills, Ludes, Candy, Tranks, Foofoo, Howards, Dead flower powers, Old joes, Sleep away | \$ 29.80 | \$ 100.00 |
| Fentanyl Patch | Duragesic patches | Apache, China girl, China town, China White, Dance Fever, Friend, Good Fellas, Great bear, He-man | \$ 24.35 | \$ 40.00 |
| Hydromorphone 4 mg | Dilaudid | Dust, Juice, Smack, D, Footballs | \$ 8.84 | \$ 5-100.00 |
| Methylphenidate | Ritalin | Rids, Pineapple, Uppers, Vitamin R, Jif, Rball | \$ 8.82 | \$ 15.00 |
| Oxycodone 80 mg | OxyContin | Blue, crack cocaine, cotton, hillbilly heroin, OCs | \$ 108.13 | \$ 800.00 |

- **Improper prescribing** refers to a variety of "lackadaisical" attitudes toward script writing.
 - Treat pain aggressively and appropriately
 - Use opioid medication for acute or chronic pain only after determining that alternative therapies do not deliver adequate pain relief [14]
 - Prescribe the lowest effective dose of opioid [14]
 - Promote the use of prescribing guidelines
 - Support state medical boards and federal DEA regulations

- **Family sharing** of medications is common; nearly 60% of prescription medications used nonmedically are obtained from family or friends.
 - Educate patients on the dangers of sharing their drugs with family and friends (*See ACPM's Use, Abuse, Misuse, and Disposal of Prescription Pain Medication: A Guide for Patients*)
 - Teach patients how to cope with pain without the use of medications
 - Stress that "doing prescription drugs" is the same as "using street drugs"



JUDGING PATIENT RISK

All physicians treating chronic pain patients with opioids should be evaluating and reevaluating patients on an ongoing basis for the risk of tolerance, misuse, abuse, and addiction. Physicians need to learn how to assess the risk of addiction and aberrant drug-related behavior to protect patients at-risk from developing dependence and to better treat patients who may be at lower risk [43].

Why do some people become addicted, while others do not?

No single factor can predict whether or not a person will become addicted to drugs. Risk for addiction is influenced by a person's biology, social environment, and age or stage of development. The more risk factors an individual has, the greater the chance that taking drugs can lead to addiction." Note that few, if anyone, begin drug use with the intent to become an addict. Addiction is an unintended but treatable complication of prescribed or non-prescribed use of a drug that has abuse potential. For more information on understanding drug abuse and addiction visit the National Institute on Drug Abuse web site <http://www.drugabuse.gov/Infofacts/understand.html>.

- **Be alert to warning signs**
 - Know the patient's history, and family history of drug abuse
 - Note whether patient exhibits aberrant behavior such as requesting early refills or appearing sedated, intoxicated, or experiencing withdrawal during a clinic visit [4,44]
 - Be familiar with anxiety, depression, and pain syndromes [45]
 - Identify manipulative behavior and seek help from peers, clinical supervisors, drug and alcohol advisory services, or medical defense insurance organizations [46]. Obtain the phone number of your State's drugs of dependence unit and file for easy access.
 - Be suspicious of patients exhibiting the following behaviors: [46]

- Arriving after regular hours or wanting an appointment toward the end of office hours
 - Stating that he/she is travelling through, visiting friends or relatives
 - Providing convincing, textbook-like description of symptoms but giving a vague medical history
 - Providing old clinical report and/or x-ray (often from interstate) in support of their request
 - Declining physical examination or permission to obtain past records or undergo diagnostic tests
 - Unwillingness or inability to provide the name of regular doctor, or stating the doctor is unavailable
 - Claiming to have lost a prescription, or forgotten to pack their medication, or saying their medication was stolen or damaged
 - Showing an unusual knowledge about opioid medications
 - Stating that specific nonopioid medication do not work, or that he/she is allergic to them
 - Pressuring the doctor by eliciting sympathy or guilt or by direct threats
- **Use screening tools**
 - To identify potential abusers physicians can employ risk stratification. Patients at low risk need minimal structure, whereas those at greatest risk need more frequent visits, fewer pills per prescription, specialist-level care, and urine drug tests [13]
 - Consider saliva drug testing (FDA-approved; CLIA-waived office-based rapid screening kits are available)
 - Consider hair drug testing for measuring long-term use (use a reliable lab)
 - Screen patients for substance abuse and other forms of psychological dependence prior to prescribing controlled substances [40].
 - Although not yet shown in prospective studies to accurately predict which patients suffering with pain will become addicted to opioids, screening tools can be very helpful [6,47]. Several tools are available:
 - **CAGE** questionnaire (Cutting down, Annoyance by criticism, Guilty feeling, Eye-openers)
 - **CAGE AID** (CAGE adapted to include drugs)
 - **PDUQ** [48]
 - **CRAFFT** (See [CRAFFT Questionnaire: A Brief Screening Test for Adolescent Substance Abuse](#))
 - **ORT** (Opioid Risk Tool)
 - **PADT** (Pain Assessment and Documentation Tool)
 - **SOAPP** (Screener and Opioid Assessment for Patients with Pain Version 1)
 - **SOAPP-R** (Revised Screener and Opioid Assessment for Patients with Pain)
 - **DIRE** (Diagnosis, Intractability, Risk, and Efficacy Inventory)
 - **COMM** (Current Opioid Misuse Measure)

CRAFFT Questionnaire: A Brief Screening Test for Adolescent Substance Abuse

| | |
|----------|---|
| C | Have you ever ridden in a C ar driven by someone (including yourself) who was “high” or who had been using alcohol or drugs? |
| R | Do you ever use alcohol or drugs to R elax, feel better about yourself, or fit in? |

| | |
|---|--|
| A | Do you ever use alcohol or drugs while you are A lone? |
| F | Do you F orget things you did while using alcohol or drugs? |
| F | Do your family or F riends ever tell you that you should cut down on your drinking or drug use? |
| T | Have you gotten in T rouble while you were using alcohol or drugs? |
| Note: Two or more "yes" answers suggests a significant problem. | |
| Center for Adolescent Substance Abuse Research. CeSAR, Children's Hospital, Boston [21] | |

MANAGING PATIENTS AT HIGHER RISK

Some physicians may shy away from treating patients at higher risk for abuse due to the fear of sanctions. If patients are carefully selected and physicians adhere to the suggestions below, proper pain management can be achieved while minimizing the risk of abuse and dependence [43].

- **Document every encounter**
 - See pain patients on a regular basis not just during crisis [40]
 - Chart everything you see, think, feel and hear about your patient. Provide details so every chart entry stands alone if separated from the chart. Have a progress note for every prescription written or telephoned to a pharmacy. Explain why a controlled drug is necessary, what alternatives have been considered, and document follow-up plans [40].
- **Obtain informed consent**
 - Have the patient sign an informed consent form so there is no doubt about the treatment plan [40]
- **Do not provide automatic refills**
 - Do not write open ended prescriptions with refills (which are not allowed on Schedule II agents)
 - See patients when new prescriptions are written
 - Do not allow staff to give out the prescription
 - Avoid telephone prescriptions [40]
- **Consider universal precautions**
 - Universal precautions (drawn from the infectious disease discipline) regards all pain patients as having the potential to get addicted to their medication. This approach helps to reduce the fear and stigma surrounding pain therapy.
 - Assess all patients for past or present substance abuse and psychiatric illness
 - Determine a diagnosis that considers the pathology of pain [44]
 - Routinely use treatment agreements, titrate opioid doses cautiously, watch for signs of abuse
 - Employ regular supervision and monitoring
 - Provide extra support for patients at risk (telephone consults, care coaching, additional education, appointment reminders) [49]
- **Develop regular use of medication agreements** (See [Resources](#))
 - Consider the use of a written controlled substance agreement that will (1) explain parameters of treatment, (2) spell out patients and physician responsibility, (3) inform patients of expectations and roles, and (4) address potential consequences if these obligations and responsibilities are not met [50].

After discussion with the patient, have them sign a document that states that they will:

- receive medications only from this practice
 - not obtain drugs via emergency rooms or other doctors
 - only use one pharmacy
 - not abuse alcohol or other substances
 - adhere to clinic protocols, such as urine/toxicology screens and random pill counts
 - keep scheduled appointments
 - not sell or share medication and that they understand that [48,8]
 - lost, stolen, or misplaced medication will not be replaced and that consideration of replacement would only occur at a clinic visit
 - requests for medication renewals will occur only during regular business hours and not by phone request
 - background checks for criminal drug and alcohol convictions will be performed
 - If patients breach their agreements, do not further prescribe. Without a practitioner-patient relationship there is no legal basis for prescribing any controlled substance [40]
- **Prescribe with caution**
 - If a generalist, get a written second opinion from a pain specialist to include in the patients chart [40]
 - Avoid "as needed" medications [40]
 - Do not prescribe long-acting or controlled-release opioids (e.g., OxyContin, fentanyl patches, methadone) for acute pain [14]
 - Consider random, periodic urine screening for opioids and other drugs for any patient less than 65 years old with non-cancer pain that is being treated with opioids for more than 6-weeks [14]
 - If a patient's dosage has increased to ≥ 120 morphine milligram equivalents per day (See Equianalgesic Chart below) without substantial improvement in pain and function, seek a consult from a pain specialist [14]

TREATING ADDICTIONS

Addiction in pain patients is rare and occurs in approximately 4 in 10,000 patients treated with opioids [8]. Addiction is often difficult to detect in this population; use the clinical features presented in Table 3 to help categorize patients. While true opioid addiction is rare in patients with chronic pain, it does occur and needs to be treated with firm compassion. Addiction and abuse affects people of all ages and all races [43].

- **Treat addiction as you would any other medical condition [6]**
 - Avoid defensiveness, avoidance, anger [6] and display a professional, empathetic and nonjudgmental attitude [45]
 - Expect resistance, but set boundaries [6]
 - Opioids are generally contraindicated in patients currently addicted
- **Refer patients with complex issues**
 - Refer patients to a pain specialist who may be able to develop an opioid-sparing strategy allowing you to remain in the role of primary care physician while obtaining help from an expert. Determine whether you will remain the prescriber or the specialist will take over prescribing [45].
 - Refer patients who are addicted to medication to 12-step programs such as Alcohol Anonymous, Narcotics Anonymous, and Pills anonymous [15]
 - Refer to inpatient or outpatient detoxification programs [15]
 - Refer to cognitive behavioral therapy
- **Teach coping skills**
 - Provide positive or negative reinforcement
 - Help patients deal with painful emotions and improve interpersonal functioning

- Foster compliance with pharmacotherapy [11]
- Suggest drug replacement therapy

| Table 3. Clinical Features of Pain Patients with and without Addictions [6] | | |
|--|---|---|
| Feature | Non-addicted Patients | Addicted Patients |
| Development of tolerance to desired effect | Very slow | Very fast |
| Pattern of use | Scheduled | Binge |
| Route of administration | Oral | Oral, intravenous, snorting |
| Dose | Steady and moderate for underlying pain condition | Escalating and high for underlying pain condition |
| Withdrawal symptoms | Infrequent, mild | Frequent, severe |
| Source | Family physician | Family physician, other doctors, or the street |
| Current and past history of addiction | Sometimes | Often |

REPORTING NONMEDICAL DRUG USE.

Physicians are legally responsible for prescribing scheduled drugs, hence; should be familiar with federal and state prescribing laws. Remember the most stringent law takes precedence, whether by the state or by the Federal government [45]. The majority of states have Prescription Drug Monitoring Program (PDMPs) requirements to help curb abuse [10]. It is particularly necessary to take action when catastrophic use—involvement of illegal activity—of a controlled substance places a patient in immediate harm [45].

- Become familiar with your state’s Prescription Drug Monitoring Program (PDMPs) requirements
- Be prepared to report and access information regarding the abuse of prescription drugs in your area

STAYING ABREAST OF CHANGE

Specific physician training in pain management and addictionology is one way to stay current on trends in prescription drug abuse [41]. The American Medical Association and the Office of National Drug Control Policy call for better physician education, physician responsibility of prescription diversion, and appropriate prescribing practices [36]. Unfortunately, only 19% of physicians receive training in prescription drug diversion in medical school. Most are ill equipped to identify substance abuse and addiction. Education programs for physicians are effective in addressing provider fears regarding the use of opioids. Providers are encouraged to: [36].

- Attend educational seminars [36]
- Read current literature on strategies to minimize drug abuse

- Visit various web sites dedicated to the topic for the latest updates (See [Resources](#))
- Become empowered to respond to patients appropriately

10. DOCTOR/PATIENT CONVERSATIONS

Many physicians have difficulty discussing critical issues with patients. A CASA report finds that over 40% of physicians have difficulty discussing substance abuse, including abuse of prescription drugs, with their patients compared with less than 20% having difficulty discussing depression [51]. Some conversations will be needed just to convince patients to take their medication; other conversations will focus on taking medication properly, and still others on the touchy subject of abuse.

When patients are fearful of scheduled drugs.

For most patients the terms opioid and narcotic can have a chilling effect on a patient's willingness to accept and adhere to pain treatment [52]. Patients often fear long-term outcomes, such as addiction with strong pain relievers. The statements below can be used in patient/doctor consults to help alleviate concerns about pain relievers.

"Yes, these medications do have the potential for addiction but actually very few pain patients become addicted to their medication."

"Addiction is a very loosely used term. Often patients are dependent on pain medication because they are in pain. This is not addiction."

"If you are really worried, let's monitor your use and see how well the pain is controlled on minimal doses."

"My office staff and I are always available for consults. We can help you with upping your doses safely."

"Here's a list of things to watch out for. Just let me know if your pain is becoming uncontrolled—don't just take more drug."

"Your type of chronic pain is just not going to go away. You need your pills every day. Don't scrimp or take more than you need, but consider your medication as just a fact of life."

When patients misuse medication.

Often patients slide into a pattern of misuse, either out of lack of education, carelessness, or escalating pain. It is important to review a patient's pattern of drug use often and review patient education material often and redundantly. Below are a few conversation starters for patients who have been taking pain medication for a while.

"It seems like you are running out of medication early. Let's talk about how much pain you are in."

"During this check-up, I want you to fill out this brief questionnaire. It will help me with your treatment plan."

"Talk to me about the types of OTC and herbal medications you take and any other drugs."

"Let's go over when you take your pills. What schedule do you use?"

"Are you comfortable with how much pain relief you are getting?"

"I want to remind you about not using alcohol with this medication. Can you handle this?"

"I know you have been suffering with your pain and I want to help, but I am concerned about your overuse of medication."

When abuse is suspected.

It is often difficult to have a conversation with a patient about potential drug abuse. It is even more difficult to refuse to prescribe when a patient is in your office asking for a prescription and you suspect abuse. Some doctors are too shy or embarrassed to say no to their patients. Be respectful. Be firm. Use short answers and provide alternatives. Practice verbal responses to handle difficult situations, such as the ones listed below: [46]

"It is my choice to not prescribe at this time." (Be clear and short, have a referral plan to provider(s) who may accept this patient)

"It is clinic policy to not prescribe these types of drugs for patients that may be developing or have a dependence problem, I can refer you to someone who can work with you both for pain and possible addiction." (Chose language so the patient has no room to maneuver)

"The licensing board and federal government does not allow us to prescribe scheduled drugs (This is deemed "borrowed protection")

- Use this tactic only if a DEA number has not been issued
- If the person is being treated for opioid dependence, then there is need for a DEA waiver, which can be granted with an existing DEA number and attendance at an approved 8 hour course

"I don't prescribe opiates for this type of pain, but I am happy to try to help in another way." (It is essential to offer alternatives)

"I'll give you 3 pills, but you will have to come back so we can set up a treatment plan" (Sidestep the urgency, but limit the amount prescribed)

"I see you are requesting extra pills. Let's talk about your pain. Is it more severe?" (Be frank; remember pseudoaddiction manifests in undertreated patients)

"I want to send you to a specialist, at this time" (Refer the patient to a pain specialist)

"Here's a prescription for this week but I want to see you every week for a while to get this under control." (See the patient more frequently for a while to monitor the situation)

"I understand you are experiencing pain. I probably can't make all of your pain disappear so let's talk about some coping strategies." (Breaks the myth that patients have a right to total pain relief) [22]

11. DRUG STORAGE AND DISPOSAL TIPS

A dilemma exists around the storage and disposal of pain medications. Patients may be hoarding hundreds of pills. If they throw them in the trash or give them to a friend, law enforcement may detect them or the pills may go back to the street for resale. Pets and wild animals may ingest the drugs. Pharmacists and physicians cannot legally take back pain medications due to liabilities. Environmentally, it is irresponsible to "flush" tablets, or dump syringes into landfills. Most sewage treatment plants are not equipped to extract pharmaceutical compounds from wastewater and the impact of these drugs on public drinking water is unknown.

There are no uniform guidelines or protocols in the U.S. for the safe, environmentally acceptable disposal of unused opioids [53]. Different government agencies publish conflicting guidelines regarding flushing, incineration, or curbside disposal. Only 5% of pharmacies regularly offer recommendations to their customers on how best to dispose of unused or expired medication [53]. A scant 18 percent of providers discuss storage and disposal of drugs with their patients, yet this is very important information to be covered in patient education sessions [36].

The World Health Organization offers these recommendations:

"Controlled substances must be destroyed under supervisions of a pharmacist or the police depending on national regulations. Such substances must not be allowed into the public domain as they may be abused. They should either be rendered unusable, by encapsulation or inertization, and then dispersed among the municipal solid waste in a landfill, or incinerated" [54].

The Office of National Drug Control Policy recommends that drugs be taken out of their containers, mixed with undesirable substances, (e.g., cat litter, used coffee grounds) and put into a disposable container with a lid or into a sealed bag before putting in the trash. Advise

patients to remove any personal information by covering the information with black marker, or duct tape, or by scratching it off.

What Physicians Can Do

- Consider writing prescriptions in smaller amounts
- Educate patients about safe storing and disposal practices
- Give drug specific information to patients about the temperature at which they should store their medications. Generally, the bathroom is not the best storage place. It is damp and moist potentially resulting in potency decrements and accessible to many people, including children and teens, resulting in potential theft or safety issues.
- Ask patients not to advertise that they are taking these types of medications and to keep their medications secure.
- Refer patients to community “take back” services overseen by law enforcement that collect controlled substances, seal them in plastic bags, and store them in a secure location until they can be incinerated. Contact your state law enforcement agency or visit www.dea.gov to determine if a program is available in your area.

12. BOTTOM LINE

It is universally acknowledged that pain is often suboptimally managed due to cultural, attitudinal, educational, legal, and system related reasons [1]. An estimated 15% to 25% of adults suffer from chronic pain at any given time, a figure that increases to 50% in the elderly [1]. Physicians are challenged with adequately managing pain while being keenly alert for misuse and abuse. It is important to follow a balanced approach when dealing with patients in pain. [1]. Physicians can do this by staying educated, attending peer workshops, using screening tools, employing careful patient selection when prescribing controlled substances, and following consensus guidelines for pain management.

Educating the public, patients, physicians about the misuse and abuse of prescribed medications is an essential part of addressing a growing problem. With efforts, providers can reduce the impact that nonmedical use of prescription drugs has on society. Standards of good clinical practice require that prescribers forge a therapeutic alliance between their patients and themselves, meaning that they fully inform and educate patients about their pain diagnosis, directions for medication use, dose, target symptoms, anticipated duration of treatment, adverse effects, drug interactions, and the rationale for taking scheduled drugs [25]. Patients need to be warned that their medications may be targeted for diversion. Compliance and minimization of misuse and abuse can be significantly enhanced by the use of motivational interviewing techniques and allowing adequate time to elicit discussion of patient concerns about prescribed medications, risks and benefits of treatment, and alternative treatment options. Enforcing medication agreements and continually monitoring clinical benefit and appropriate use of medications will help to minimize misuse and abuse.

Knowledge of the prevalence of the problem, impact and burden will help clinicians stay abreast of current trends, demographics, risk factors, and clinical characteristics of the prescription drug abuse epidemic. These can be applied in clinical practice to improve screening and clinical management skills that may reduce nonmedical use and abuse of prescription medications without compromising patient care and access to needed prescription medications [25].

Impact Of Non-Medical Drug Use [10]

- Failure to fulfill major role obligations at work, school, or home
- Physical harm
- Substance-related legal problems
- Personal and interpersonal problems
- Gateway to illicit drug use [23]

13. RESOURCES/LINKS

GUIDELINES

- Consensus statement: definitions related to the use of opiates in the treatment of pain. Glenview, IL: AAPM/APS, and Chevy Chase, MD: ASM;2001. American Academy of Pain Medicine, American Pain Society, American Society of Addiction Medicine.
- Fishman S. Resources for pharmacovigilance and pain management. In: Responsible opioid prescribing: a physician's guide. Dallas: Federation of State Medical Boards: 2007. P 107-124
- Chou R, Fanciullo GJ, Fine PG, et al. Opioids for chronic noncancer pain: Prediction and identification of aberrant drug-related behaviors: a review of the evidence for and American Pain Society and American Academy of Pain Medicine clinical practice guideline. *J Pain*. 2009. <http://download.journals.elsevierhealth.com/pdfs/journals/1526-5900/PIIS1526590008008328.pdf>. Accessed 12/2/2010.
- Chou R, Fanciullo GJ, Fine P, et al. Clinical guidelines for the use of chronic opioid therapy in chronic noncancer pain. *J Pain*. 2009;10:113-130.
- Kleber HD, Weiss RD, Anton RF, et al. Practice guidelines for the treatment of patients with substance use disorders. 2nd ed. http://www.psychiatryonline.com/pracGuide/pracGuideTopic_5.aspx
- Canadian guidelines for safe and effective use of opioids for chronic noncancer pain. 2010. Part A. http://nationalpaincentre.mcmaster.ca/documents/opioid_guideline_part_a_v4_5.pdf Part B. http://nationalpaincentre.mcmaster.ca/documents/opioid_guideline_part_b_v5_6.pdf
- American Geriatric Society. Management of persistent pain in older persons. http://www.americangeriatrics.org/health_care_professionals/clinical_practice/clinical_guidelines_recommendations/persistent_pain_executive_summary

ASSOCIATIONS

- American Chronic Pain Association <http://www.theacpa.org/default.aspx>
- American Pain Society <http://www.ampainsoc.org/>
- Emerging solutions in Pain <http://www.emergingsolutionsinpain.com/>

- Federation of State Medical Boards <http://www.fsmb.org/pain-resources.html>
- National Alliance for Model State Drug Laws <http://www.namsdl.org/home.htm>
- National Institute on Drug Abuse (NIDA) <http://www.nida.nih.gov/nidahome.html>
- Office of National Drug Control Policy <http://www.whitehousedrugpolicy.gov/>

SCREENING TOOLS

- **CAGE, CAGE-AID**
Very brief 4-item questionnaire(s). <http://www.partnersagainstpain.com/hcp/pain-assessment/tools.aspx>. Society of Teachers of Family Medicine. Project SAEFP workshop materials.
- **COMM** (Current Opioid Misuse Measure)
A patient self-assessment that assists clinicians in identifying current pain patients who are misusing their opioid medications. Since the COMM examines concurrent misuse, it is ideal for helping clinicians monitor patients' aberrant medication-related behaviors over the course of treatment. <http://www.painedu.org/>. Butler SF, Budman SH, Fernandez KC, et al. Development and validation of the Current Opioid Misuse Measure. *Pain*. 2007;130(1-2):144-156.
- **DIRE** (Diagnosis, Intractability, Risk, and Efficacy Inventory)
A clinician-rated scale designed to predict the analgesic efficacy of, and patient compliance to, long-term opioid treatment in the primary care setting. This scale is intended for use in patients who have chronic noncancer pain and who are currently being treated with opioids or are being considered for opioid treatment. http://www.emergingsolutionsinpain.com/ESP9i/pdf/DIRE_Score.pdf
- **ORT** (Opioid Risk Tool)
A brief, easy-to-use screening tool, which is administered during the initial clinical visit; enables the physician to determine a patient's potential risk for developing aberrant behaviors when prescribed opioids for chronic pain. The ORT can either be self-administered or completed by the physician as part of the patient interview. <http://www.painknowledge.org/physiciantools/>. Webster LR, Webster RM. Predicting aberrant behaviors in opioid-treated patients: preliminary validation of the opioid risk tool. *Pain Med*. 2005;6(6):432-442.
- **PADT™** (The Pain Assessment and Documentation Tool)
PADT helps healthcare professionals use the 4 As (**A**nalgesia, **A**ctivities of Daily Living, **A**dverse Events, **A**brerrant Drug-related behavior) in their practices. The PADT *is a two-sided chart note that can be easily included in the patient's medical record and is designed to be intuitive, pragmatic, and adaptable to clinical situations.* The value of assessing pain relief, side effects, and aspects of functioning has been emphasized repeatedly in the literature and the PADT acknowledges these standards. Documentation of drug-related behaviors, however, is a relatively new concept that has been incorporated into the PADT. http://www.painknowledge.org/physiciantools/opioid_toolkit/components/PADT.pdf
Passik SD, Kirsh KL, Casper D. Addiction-related assessment tools and pain management: instruments for screening, treatment planning, and monitoring compliance. *Pain Med*. 2008;9(2):s145-166.
- **PDUQ** (Prescription Drug Use Questionnaire)
A 31- question patient self-assessment to identify presence of opioid abuse or dependence in patients with chronic pain. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2630195/pdf/nihms73559.pdf>
Compton PA, Wu SM, Schieffer B, et al. Introduction of a self-report version of the

Prescription Drug Use Questionnaire and relationship to medication agreement noncompliance. *J Pain Symptom Manage*. 2008;36(4):383-395.

- **SBIRT** (Guidelines for building a Screening, Brief Intervention, and Referral program) Focused on alcohol but a 28-item SBIRT Screening: DAST (Drug Abuse Screening Test). <http://www.coloradoguidelines.org/pdf/guidelines/sbirt/SBIRT%20DAST-10%20-%208-6-08.pdf>
Institute for Research, Education and Training in Addictions. SBIRT – Screening, Brief Intervention and Referral to Treatment.
http://www.ireta.org/sbirt/1_multipart_xF8FF_4_sbirt.pdf
- **SOAPP-R**
A quick (10 minute), easy-to-use, 24-item questionnaire designed to help providers evaluate the patient's relative risk for developing problems when placed on long-term opioid therapy. <http://www.pmgsupport.com/Clinical%20Forms/Clinical%20Forms/Sceener%20And%20Opioid%20Assessment.pdf>. Butler SF, Fernandez K, Benoit C, Budman SH, Jamison RN. Validation of the revised Screener and Opioid Assessment for Patients with Pain (SOAPP-R). *J Pain*. 2008;9(4):360-372.

CONTROLLED SUBSTANCE AGREEMENTS:

- <http://www.coloradospineinstitute.com/forms/narcotic-contract.pdf>
- <http://kirkpatrickfamilycare.com/edu/controlled-substance-agreement.php>
- http://www.thepainmd.com/2_16CntrlSubst_Agrmnt2.html
- http://www.northernpainmanagement.com/controlled_substance_agreement.pdf
- Ross EL, Holcomb C, Jamison RN. Addressing abuse and misuse of opioid analgesics, Drug Benefit Trends. 2009;21(2):1-10, Table 4. Accessed 12/6/2010.
<http://dbt.consultantlive.com/disease-trends/content/article/1145628/1469892>

14. REFERENCES

1. Brennan F, Carr DB, Cousins M. Pain management: a fundamental human right. *Anesth Analg*. 2007;105:205-221.
2. A Joint Statement From 21 Health Organizations and the Drug Enforcement Administration. Promoting pain relief and preventing abuse of pain medications: A critical balancing act.
http://www.aspmn.org/pdfs/A_JOINT_STATEMENT_FROM_21_HEALTH_ORGANIZATIONS.pdf. Accessed 12/1/2010.
3. Strassels SA. Economic burden of prescription opioid misuse and abuse. *J Manag Care Pharm*. 2009;15(7):556-562.
4. Gallagher RM, Rosenthal LJ. Chronic pain and opiates: balancing pain control and risks in long-term opioid treatment. *Arch Phys Med Rehabil*. 2008;89(3 Suppl 1):S77-82.
5. Benyamin RM, Datta S, Falco FJ. A perfect storm in interventional pain management: regulated, but unbalanced. *Pain Physician*. 2010;13(2):109-116.
6. Kahan M, Srivastava A, Wilson L, et al. Misuse of and dependence on opioids: study of chronic pain patients. *Can Fam Physician*. 2006;52(9):1081-1087.
7. Lineberry TW, Bostwick JM. Taking the physician out of "physician shopping": a case series of clinical problems associated with Internet purchases of medication. *Mayo Clin Proc*. 2004;79(8):1031-1034.
8. Ives TJ, Chelminski PR, Hammitt-Stabler CA, et al. Predictors of opioid misuse in patients with chronic pain: a prospective cohort study. *BMC Health Serv Res*. 2006; 4:6:46.
9. Boyd CJ, McCabe SE, Cranford JA, et al. Adolescents' motivations to abuse prescription medications. *Pediatrics*. 2006;116(6):2472-2480.
10. Hernandez SH, Nelson LS. Prescription drug abuse: insight into the epidemic. *Clin Pharmacol Ther*. 2010 ;88(3):307-317.
11. Gilson AM, Kreis PG. The burden of the nonmedical use of prescription opioid analgesics. *Pain Med*. 2009;10 Suppl 2:S89-100.
12. Budman SH, Grimes Serrano JM, Butler SF. Can abuse deterrent formulations make a difference? Expectation and speculation. *Harm Reduct J*. 2009;6:8.
13. Passik SD. Issues in long-term opioid therapy: unmet needs, risks, and solutions. *Mayo Clin Proc*. 2009;84(7):593-601.
14. Centers for Disease Control and Prevention (CDC). Unintentional drug poisoning in the United States. July 2010.
<http://www.cdc.gov/HomeandRecreationalSafety/pdf/poison-issue-brief.pdf>. Accessed 12/8/2010.

15. Lessenger JE, Feinberg SD. Abuse of prescription and over-the-counter medications. *J Am Board Fam Med.* 2008;21(1):45-54.
16. Haller C, James L. Out of the medicine closet: time to talk straight about prescription drug abuse. *Clin Pharmacol Ther.* 2010 ;88(3):279-282.
17. DuPont RL. Prescription drug abuse: an epidemic dilemma. *J Psychoactive Drugs.* 2010;42(2):127-132.
18. National Survey on Drug Use and Health. U.S. Department of Health and Human Services. Substance Abuse and Mental Health Services Administration Office of Applied Studies. <http://oas.samhsa.gov/NSDUH/2k9NSDUH/2k9ResultsP.pdf>. Accessed 12/8/2010.
19. Katz NP, Birnbaum HG, Castor A. Volume of prescription opioids used nonmedically in the United States. *J Pain Palliat Care Pharmacother.* 2010;24(2):141-144.
20. Manchikanti L, Singh A. Therapeutic opioids: a ten-year perspective on the complexities and complications of the escalating use, abuse, and nonmedical use of opioids. *Pain Physician.* 2008(a);11(2 Suppl):S63-88.
21. Griswold KS, Aronoff H, Kernan JB, Kahn LS. Adolescent substance use and abuse: recognition and management. *Am Fam Physician.* 2008;77(3):331-336.
22. Manchikanti L. Prescription drug abuse: what is being done to address this new drug epidemic? Testimony before the Subcommittee on Criminal Justice, Drug Policy and Human Resources. *Pain Physician.* 2006;9(4):287-321.
23. Rogers PD, Copley L. The nonmedical use of prescription drugs by adolescents. *Adolesc Med State Art Rev.* 2009;20(1):1-8, vii. Review.
24. National Institute on Drug Abuse. Prescription Drug Abuse—September 2010. <http://drugabuse.gov/pdf/tib/prescription.pdf>. Accessed 12/8/2010.
25. Riggs P. Non-medical use and abuse of commonly prescribed medications. *Curr Med Res Opin.* 2008;24(3):869-877.
26. Green TC, Grimes Serrano JM, Licari A, et al. Women who abuse prescription opioids: findings from the Addiction Severity Index-Multimedia Version Connect prescription opioid database. *Drug Alcohol Depend.* 2009;103(1-2):65-73.
27. Blazer DG, Wu LT. Non-prescription use of pain relievers among middle aged and elderly community adults: National Survey on Drug Use and Health. *J Am Geriatr Soc.* 2009;57:1252-1257.
28. Starz TW, Vogt MT, Kwok CK, et al. Management of low back pain patients: a comparison of commercially insured patients and those with Medicaid insurance [abstract]. *Arthritis Rheum.* 2004;50 Suppl 9:S320. In: http://painmedicineweb.com/index.asp?section_id=83&show=dept&issue_id=117&article_id=4258
29. Manchikanti L, Whitfield E, Pallone F. Evolution of the National All Schedules Prescription Electronic Reporting Act (NASPER): a public law for balancing treatment of pain and drug abuse and diversion. *Pain Physician.* 2005;8(4):335-347.
30. Okie S. A flood of opioids, a rising tide of deaths. *N Eng J Med.* 2010;363;21:1981-1985.
31. Ruetsch C. Empirical view of opioid dependence. *J Manag Care Pharm.* 2010a;16(1 Suppl B):S9-13.
32. White AG, Birnbaum HG, Mareva MN, et al. Direct costs of opioid abuse in an insured population in the United States. *J Manag Care Pharm.* 2005;11(6):469-479.
33. U.S. Food and Drug Administration (FDA). Joint meeting of the anesthetic and life support drugs advisory committee and <http://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/Drugs/AnestheticAndLifeSupportDrugsAdvisoryCommittee/UCM217510.pdf>. Accessed 1/4/2011.
34. Wang J, Christo PJ. The influence of prescription monitoring programs on chronic pain management. *Pain Physician.* 2009;12(3):507-515.
35. Wick JY. Drug-abuse deterrent formulations. *Consult Pharm.* 2009 ;24(5):356-362, 365.
36. Crozier MK, McMillan S, Hudson S, Jones S. The Eastern North Carolina opioid prescriber's project: a model continuing medical education workshop. *J Opioid Manag.* 2010;6(5):359-364.
37. Wesson DR, Smith DE. Prescription drug abuse. Patient, physician, and cultural responsibilities. *West J Med.* 1990;152:613-616.
38. Smith DE, Seymore RB. Prescribing practices: the educational alternative for the misplayer. *Proceedings of the White House Conference on Prescription Drug Abuse, Washington, DC, 1980.*
39. Manchikanti L. National drug control policy and prescription drug abuse: facts and fallacies. *Pain Physician.* 2007;10(3):399-424.
40. Cole BE. Prescribing opioids, relieving patient suffering and staying out of personal trouble with regulators. *Pain Practitioner.* 2002;12(3):5-8.
41. Brennan MJ, Stanos S. Strategies to optimize pain management with opioids while minimizing risk of abuse. *PM R.* 2010;2(6):544-558.
42. Manchikanti L, Fellows B, Ailani H, Pampati V. Therapeutic use, abuse, and nonmedical use of opioids: a ten-year perspective. *Pain Physician.* 2010;13(5):401-435.
43. Jan SA. Introduction: landscape of opioid dependence. *J Manag Care Pharm.* 2010;16(1 Suppl B):S4-8.
44. Savage SR. Management of opioid medications in patients with chronic pain and risk of substance misuse. *Curr Psychiatry Rep.* 2009;11(5):377-384.
45. Isaacson JH, Hopper JA, Alford DP, Parran T. Prescription drug use and abuse. Risk factors, red flags, and prevention strategies. *Postgrad Med.* 2005;118(1):19-26.
46. Monheit B. Prescription drug misuse. *Aust Fam Physician.* 2010;39(8):540-546.
47. Moore TM, Jones T, Browder JH, et al. A comparison of common screening methods for predicting aberrant drug-related behavior among patients receiving opioids for chronic pain management. *Pain Med.* 2009;10(8):1426-1433.
48. Compton PA, Wu SM, Schieffer B, et al. Introduction of a self-report version of the Prescription Drug Use Questionnaire and relationship to medication agreement noncompliance. *J Pain Symptom Manage.* 2008;36(4):383-395.
49. Ruetsch C. Practice strategies to improve compliance and patient self-management. *J Manag Care Pharm.* 2010b;16(1-b):S26-S27.
50. Manchikanti L, Atluri S, Trescott AM, et al. Monitoring opioid adherence in chronic pain patients: tools, techniques, and utility. *Pain Physician.* 2008(b);11(2 Suppl):S155-S180.
51. National Institute on Drug Abuse. Research Report. Prescription drugs - abuse an addiction. <http://www.nida.nih.gov/PDF/RRPrescription.pdf>. Accessed 12/8/2010.

52. Mangione MP, Crowley-Matoka M. Improving pain management communication: how patients understand the terms "opioid" and "narcotic". *J Gen Intern Med.* 2008;23(9):1336-1338.
53. Herring ME, Shah SK, Shah DO, et al. Current regulations and modest proposals regarding disposal of unused opioids and other controlled substances. *JAOA.* 2008;108(7):338-342.
54. Gray RCF, Hogerzeil HV, Pruss AM, Rushbrook P; World Health Organization. Guidelines for safe disposal of unwanted pharmaceuticals in and after emergencies; March 1999. Réseau Médicaments & Développement Web site. Available at: <http://apps.who.int/medicinedocs/en/d/Jwhozip51e/5.5.html>. Accessed 1/13/2011.