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Contact Hours: **3**

Prescription Drug Abuse Opioid Diversion and Best-Practice Prescribing

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LEARNING OUTCOME AND OBJECTIVES: Upon completion of this continuing education course, you will be prepared to help prevent prescription drug abuse and diversion through dissemination and implementation of evidence-based information about the current prescription drug abuse epidemic, challenges in managing chronic pain, and best practices for prescribing controlled substances. Specific learning objectives include:

- Discuss the epidemiology, trends, contributing factors, and social and economic impacts of prescription drug abuse and diversion.
- Identify risk factors for potential misuse/abuse of prescribed pain medications.
- List the classes of drugs that are most commonly abused and/or diverted.
- Discuss behaviors suggestive of aberrant drug-taking behavior.
- Compare/contrast acute and chronic pain.
- Summarize CDC guidelines for prescribing opioids for chronic pain.
- Describe current initiatives aimed at preventing prescription drug abuse and diversion.

INTRODUCTION

The leading cause of accidental death in the United States today is drug overdose. Prescription drugs have been fueling this epidemic for more than a decade, and now heroin and synthetic opioid abuse are on the rise. President Trump has declared the opioid epidemic a national public health emergency, directing federal agencies, under the Public Health Service Act, to provide grant money to combat the problem (Whitehouse, 2017).

Since 1999, the number of American overdose deaths involving opioids has quadrupled. From 2000 to 2015, more than 500,000 people died of drug overdoses, and opioids account for the

majority of those. The Centers for Disease Control and Prevention (CDC) found that nearly 64,000 people died from drug overdoses in 2016. The five states with the highest rates of death due to overdose (per 100,000 people) were West Virginia (52), Ohio (39.1), New Hampshire (39), Pennsylvania (37.9), and Kentucky (33.5). Despite significant efforts to curb this epidemic, these 2016 overdose statistics reveal a consistent and continuing escalation of the problem (CDC, 2017).

Misuse of psychotherapeutic agents—including opioids, stimulants, sedatives, and tranquilizers—is a problem that affects every age, gender, ethnic group, and socioeconomic class and is contributing significantly to the overall drug abuse epidemic in this country. Serious and deadly consequences from misuse have prompted the medical community to reevaluate chronic pain treatment and prescribing practices, resulting in the development of evidence-based guidelines for prescribing opioids for chronic pain, released by the CDC in March 2016 (Dowell et al., 2016).

Prescription drug abuse is a problem that must be addressed within the healthcare system. Nurses are in a unique position to address the problem and help curb this growing epidemic. Nurses comprise the largest group of healthcare professionals and care for more patients than any other health profession. Nurses who understand the risks associated with prescription drug abuse will be better prepared to identify and intervene with patients and colleagues who may be at risk.

Prescription opioid medications are the drugs most commonly abused, diverted, and associated with overdose deaths. Since they are also the drugs commonly prescribed for treating pain, nurses must be acutely aware of current challenges in managing chronic pain. An understanding of the challenges in chronic pain management as well as current guidelines for prescribing opioids for chronic pain will lead to more responsible opioid prescribing. Nurses will also be prepared to provide better pain care while concurrently helping patients avoid addiction risk.

DEFINITION OF TERMS

Prescription drug misuse and nonmedical use: Taking a medication in a manner or dose other than prescribed; taking someone else’s prescription, even if for a legitimate medical complaint such as pain; or taking a medication to feel euphoria (i.e., to get “high”) (The term *nonmedical use* of prescription drugs also refers to these categories of misuse) (NIDA, 2016a).

Prescription drug abuse: Taking prescription drugs to feel euphoria (i.e., to get “high”) (NIDA, 2016a).

Prescription drug diversion: Diverting prescription drugs from legal and medically necessary purposes toward use that is illegal and typically not authorized or medically necessary (U.S. DHHS, 2012).

Illicit drug use: Illegal use of drugs, including the nonmedical use of prescription drugs (SAMHSA, 2013a).



Psychotherapeutic drugs: Drugs that have an effect on the function of the brain and that often are used to treat psychiatric/neurologic disorders; includes opioids, sedatives, tranquilizers, and stimulants (SAMHSA, 2016).

Substance use disorder: Recurrent use of alcohol and/or drugs that causes clinically and functionally significant impairment such as health problems, disability, and failure to meet major responsibilities at work, school, or home. The *DSM-5* no longer uses the terms *substance abuse* or *substance dependence* but refers to a spectrum of substance use disorders, which may be classified as mild, moderate, or severe depending on specific diagnostic criteria (SAMHSA, 2015).

Addiction: A chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences. It is considered a brain disease because drugs change the brain's structure and how it works. These brain changes can be long lasting and lead to many harmful, often self-destructive, behaviors (NIDA, 2014).

SCOPE OF THE PROBLEM

Drug overdose is the leading cause of accidental death in the United States, with 52,404 lethal drug overdoses in 2015. Opioid addiction is driving this epidemic, with 20,101 overdose deaths related to prescription pain relievers and 12,990 overdose deaths related to heroin in 2015. Of the 20.5 million Americans 12 or older that had a substance use disorder in 2015, 2 million had a substance use disorder involving prescription pain relievers (Rudd et al., 2016).

Prescription drugs are the second most abused category of drugs in the United States, following marijuana. When used for nonmedical purposes, these drugs are just as dangerous and deadly as illegal drugs. Prescription drugs, particularly opioid medications, have contributed significantly to an increase in overdose deaths in America. They are more available to a broader population, and because prescription drugs are legal, many people perceive them to be safer and fail to recognize the dangers in using them (SAMHSA, 2016).

Epidemiology

The epidemiology of prescription drug abuse can be examined using a number of reliable and up-to-date sources. Surveillance systems such as the National Survey on Drug Use and Health (NSDUH) and the Drug Abuse Warning Network (DAWN) collect survey data aimed to provide an accurate estimate of trends in prescription drug use.

The NSDUH is an annual survey of the U.S. population ages 12 and older. It provides information about prevalence of substance abuse in the population and describes socio-demographic characteristics of users, patterns of use, perceptions of risk and availability, and other associated factors. This information is important in understanding the prescription drug abuse epidemic because it provides a snapshot of the larger problem of substance abuse for which prescription drugs have now become a major contributing factor.



Psychotherapeutic agents comprise four categories of prescription drugs used nonmedically. These include pain relievers, tranquilizers, stimulants, and sedatives. Compared with prior NSDUH data collection efforts, the 2015 revision aims to collect more specific and detailed information on the use and misuse of psychotherapeutic agents. This newer, revised collection tool provides a better snapshot of the nature and extent of prescription drug misuse and can help policymakers better refine substance use prevention and treatment strategies (SAMHSA, 2016).

DAWN is a public health surveillance system that also provides insight into the scope of the problem of nonmedical or illicit use of prescription drugs. DAWN collects data from U.S. hospital emergency departments on treatment related to recent use of prescription medication and other drugs (SAMHSA, 2013b).

The Prescription Behavior Surveillance System (PBSS) is an ongoing, population-based surveillance system designed to compile de-identified epidemiological data on misuse behaviors. The PBSS gathers controlled substance data state by state from pharmacies and quantifies the data to identify patterns of misuse. The PBSS identifies potential misuse behaviors, like patients using multiple prescribers, paying for prescriptions with cash, and overlapping controlled substance prescriptions (PBSS, n.d).

Trends

In 2015, an estimated 119 million Americans, or 44% of the population ages 12 or older, used prescription psychotherapeutic drugs in the past year:

- Pain relievers: 97.5 million
- Tranquilizers: 39.3 million
- Stimulants: 17.2 million
- Sedatives: 18.6 million

During this same period, 18.9 million people ages 12 or older misused prescription psychotherapeutic agents. The most common reason for misuse was to relieve physical pain (62.6%), and the most misused prescription drugs were opioids (SAMHSA, 2016).

During the period between 1999 and 2015, annual overdose deaths in the United States increased from 16,849 to 52,404 (UNODC, 2017). Despite significant efforts to reduce overdose deaths, the numbers are still climbing. In January 2017, the CDC (2017a) estimated that the number of people in the United States who died from overdose in the prior 12-month period was 64,070. These growing numbers are particularly concerning amidst a significant nationwide effort to curb this epidemic.

In addition to the alarming increase in overdose related to opioids, between 2002 to 2015 there was a 4.3 fold increase in the total number of deaths involving benzodiazepines. A U.S. Food and Drug Administration (FDA, 2016) review found the combined use of opioid medications with benzodiazepines has resulted in serious side effects and deaths, leading the FDA to place black box warnings on this combination of prescription drugs.



The most recent NSDUH data also raises concern about the increasing misuse of CNS stimulants (e.g., ADHD drugs). Over the short term, involvement with CNS stimulants has increased 85%, echoing a similar rise of 71% in illicit stimulant (amphetamines/methamphetamine) abuse (SAMHSA, 2016).

Contributing Factors

A complex interrelationship exists between the therapeutic use of opioids to manage pain and the increase in prescription drug abuse, diversion, and overdose deaths. This relationship parallels an increase in availability of prescription drugs for nonmedical use and our nation's growing substance abuse problem.

INCREASED PRESCRIBING OF CONTROLLED SUBSTANCES

Increased controlled substance prescribing has contributed to the increase in prescription drug abuse and diversion. Sales of opioid medication drastically increased since the 1990s—from 76 million prescriptions in 1991 to 210 million prescriptions in 2010—creating a significant increase in the environmental availability of opioids and making them more accessible for nonmedical use. In 2012, 259 million prescriptions were written for opioids, which is more than enough to give every American adult their own bottle of pills (CDC, 2014).

A comprehensive nationwide effort in more recent years to reduce the numbers of prescription medication available for misuse is beginning to make a difference. Between 2012 and 2016, the number of opioid prescriptions written in the United States decreased by 43 million. Every state in the nation decreased prescribing of opioids during this time (Guy et al., 2017).

Between 2015 and 2016 there was a reduction of 5.6% in opioid prescribing in the United States overall. However, even with significant reductions in opioid prescribing, overdose fatalities continue to rise as users turn to cheaper substitutes that are more widely available and less costly.

MORE AGGRESSIVE PAIN MANAGEMENT PRACTICES

In the 1990s, “underprescribing” for pain was the predominant concern because of the physiological and psychological effects caused by unrelieved pain. Concerns about under-treatment of pain despite the availability of effective drugs led to a movement toward more aggressive pain management, which became a driving force behind more liberal opioid prescribing.

The Federation of State Medical Boards responded in 1998 by releasing “reformed guidelines” supporting the use of opioids, even in high doses, for palliative care, oncology care, acute injury care, and even the treatment of chronic noncancer pain (ASAM, 2012). Support from the pharmaceutical industry to increase utilization of opioid analgesics as a preferred treatment for chronic pain may have driven financial incentives that also contributed to more liberal prescribing practices.



The Joint Commission (TJC) supported the efforts to improve pain management in healthcare facilities across the country. In August 1997, a collaborative project was initiated to include pain assessment and management in TJC standards. By 2001, all organizations accredited by TJC, including hospitals, ambulatory care centers, behavioral health, and home care, were required to incorporate pain assessment and management into the treatment plan for all patients. Hospitals and other healthcare organizations were faced with the risk of receiving unsatisfactory accreditation visits if they did not have a formal process in place to proactively probe and properly treat acute and chronic pain (ASAM, 2012). Since opioids are one very effective treatment in the management of pain, more liberal prescribing practices evolved.

More recently, the opioid epidemic in this country has forced the medical community to reevaluate prescribing practices and pain care. Over the past few years, a shift has been occurring that may completely change the way pain is evaluated and treated. In 2016 the American Medical Association (AMA) passed several resolutions aimed at reducing opioid prescribing. The AMA recommended to the Joint Commission that pain be removed as a “fifth vital sign” in professional medical standards. Additionally, the AMA advocated for the removal of the pain management component from patient satisfaction surveys because of its association with reimbursement and quality metrics that impact payment for services (AMA, 2016).

In 2018, the Joint Commission implemented new and revised pain assessment standards. These pain assessment and management standards require accredited hospitals to:

1. Identify a leader or leadership team that is responsible for pain management and safe opioid prescribing
2. Involve patients in developing their treatment plans and setting realistic expectations and measurable goals
3. Promote safe opioid use by identifying high-risk patients
4. Monitor high-risk patients
5. Facilitate clinician access to prescription drug monitoring program databases
6. Conduct performance improvement activities focusing on pain assessment and management to increase safety and quality for patients

(TJC, 2017)

PATIENT PERCEPTION AND LACK OF KNOWLEDGE

Patient perception about the safety and use of prescription drugs has played a significant role in the widespread use and availability of controlled substances. Patients with misguided perceptions that prescription drugs are safer and less addictive believe it is acceptable to share prescription medication with friends or family members. These perceptions account for more widespread distribution of controlled substances to individuals for nonmedical use. In addition, lack of education about proper storage and disposal of controlled substances has left many unused prescriptions in medicine cabinets for months or even years, where these powerful drugs may be a target for nonmedical use and diversion.



CONSUMER CULTURE

The culture we live in today has also contributed to the abuse and diversion of controlled substances. Our culture has evolved to one that demands instant gratification, and taking a pill for any ailment has become acceptable. Direct-to-consumer marketing by the pharmaceutical industry has increased patient demand for prescription drugs by making patients more comfortable about asking their physicians for the drugs they feel they need. The proliferation of drug information on the Internet has also contributed by increasing access to legitimate as well as illegitimate prescription drug information.

Societal and Economic Impacts of Prescription Drug Abuse

There is a tremendous societal burden associated with prescription drug abuse. The number of lives lost to drug overdose—along with an increasing incidence of HIV, hepatitis B, and hepatitis C associated with increased IV drug use—has ignited a nationwide effort to address the problem.

More subtle societal costs are evident as families face increased rates of suicide and depression, children are born to addicted mothers, communities battle increased crime, and workplaces struggle with lost productivity. Prescription drug abuse is a shared burden on society and negatively impacts the criminal justice, healthcare, education, welfare, and workforce systems.

ECONOMIC

In 2013, the economic cost associated with prescription opioid abuse was estimated at \$78.5 billion. Costs were attributed to lost workforce productivity (\$20 billion), healthcare costs (\$28 billion), fatal overdose (\$21.5 billion), and criminal justice costs (\$7.7 billion) (Florence et al., 2016).

The economic cost is far reaching and can also be seen in government programs. Thousands of Medicaid beneficiaries and providers have been involved in potentially fraudulent purchases of controlled substances. This has resulted in millions of dollars in payments for prescriptions to patients who obtained controlled substances from multiple health practitioners without the prescribers' knowledge of the other prescriptions (i.e., "doctor shopping") (U.S. DHHS, 2012). Likewise, there is a staggering economic burden to care for babies born exposed to drugs and babies with a diagnosis of neonatal abstinence syndrome, which is a group of problems that occur in newborns who were exposed to addictive illegal or prescription drugs in utero.

RISK FACTORS FOR DRUG ABUSE/DIVERSION

To examine risk for substance abuse or drug diversion, it is important to look at general risk factors as well as specific population risk indicators. There are a number of physiologic, behavioral, and genetic risk factors that can predispose any person to abuse of opioid medication. The factor that appears to be most strongly predictive of drug abuse, misuse, or other aberrant drug-related behaviors after initiation of chronic opioid therapy is a personal or family history of



alcohol or drug abuse (Chou et al., 2009). Recognizing and responding to risk indicators is an important nursing responsibility that can help reduce prescription drug abuse and diversion among patients and colleagues.

Aberrant Drug-Related Behaviors

Some patients who are prescribed opioid pain medication are at increased risk for opioid abuse and diversion. These patients may demonstrate opioid misuse behaviors that can provide clues to the clinician. *Aberrant drug-related behavior (ADRB)* is the term commonly used to describe a set of behaviors that may be associated with misuse of prescription opioids.

ADRB may occur because a patient is experiencing poor pain control or has fear of uncontrolled pain, which can lead to hoarding of medication. The behaviors may also be attributed to elective use of opioid medication for the euphoric effect or for non-pain-related symptoms such as anxiety, depression, insomnia, and stress.

ADRB in patients who are prescribed opioids should trigger clinicians to the possibility of addiction. Current literature suggests a range of aberrant drug-related behaviors, with some more predictive of addiction than others. The information in the following box is based on research literature and can help guide clinicians who are treating and monitoring patients who are receiving prescription opioid therapy for long-term pain management.

EXAMPLES OF ADRBs

Behaviors more likely to be associated with medication abuse/addiction:

- Selling medications or obtaining them from nonmedical sources
- Falsification of prescription (forgery or alteration)
- Injecting medication meant for oral use; oral or IV use of transdermal patches
- Resistance to changing medication despite deterioration in function or significant negative effects
- Loss of control over alcohol use
- Use of illegal drugs or prescriptions that are not prescribed for the patient

Behaviors that look aberrant but may be more a part of stabilizing a patient's pain condition and less predictive of medication abuse/addiction:

- Asking for, or even demanding, more medication
- Asking for specific medications
- Stockpiling medications during times when pain is less severe



- Use of the pain medications during times when pain is less severe
- Use of the pain medications to treat other symptoms
- Reluctance to decrease opioid dosing once stable
- And, in the earlier stages of treatment:
 - Increasing medication dosing without instructions to do so from the provider
 - Obtaining prescriptions from sources other than the primary pain provider
 - Sharing or borrowing similar medications from friends/family

Source: Manchikanti et al., 2008.

COMMONLY DIVERTED/ABUSED DRUGS

There are many types of prescription drugs that have high potential for abuse (see table below). Three specific classes are most commonly abused and thus most susceptible to diversion for nonmedical use:

- **Pain medications/narcotics.** Opioid pain relievers (narcotics) are the most commonly diverted controlled prescription drugs (SAMHSA, 2013a). Opioid medications are effective for the treatment of pain and have been used appropriately to manage pain for millions of people, however increased rates of abuse and overdose deaths have raised concerns about proper use of these medications in the treatment of chronic pain.
- **Central nervous system (CNS) depressants/sedatives/hypnotics.** CNS depressants slow brain activity and are useful for treating anxiety and sleep disorders. Since many patients with pain also experience anxiety or sleep disturbances, increased prescribing of sedative hypnotics has paralleled the increase in prescribing of opioids. Clinicians who add sedative hypnotics to the treatment plan for chronic pain patients may potentiate the risk for patients who are also prescribed opioid medication.
- **Stimulants.** Stimulants are prescribed primarily for treatment of attention deficit hyperactivity disorder (ADHD) and narcolepsy. They may also be used as an adjunct medication in the treatment of depression. When taken nonmedically, stimulants can induce a feeling of euphoria and thus have a high potential for abuse and diversion. They also have a cognitive enhancement effect that has contributed to non-medical use by professionals, athletes, and older individuals. Nonmedical use of stimulants poses serious health consequences, including addiction, cardiovascular events, and psychosis (NIDA, 2017b).



DRUGS WITH HIGH POTENTIAL FOR DIVERSION/ABUSE	
Category	Drugs
Narcotics/opioids	<ul style="list-style-type: none"> • Codeine • Morphine (Roxinol, Duramorph) • Methadone (Methadose, Dolophine) • Buprenorphine (Buprenex, Suboxone, Subutex) • Fentanyl (Actiq, Duragesic, Sublimaze) • Hydrocodone (Vicodin, Lortab) • Hydromorphone (Dilaudid) • Meperidine (Demerol) • Nalbuphine (Nubain) • Oxycodone (Tylox, Percodan, Oxycontin) • Propoxyphene (Darvon) • Tramadol (Ultram)
CNS depressants	<ul style="list-style-type: none"> • Barbituates: pentobarbital (Numbutal), mephobarbital (Mebaral) • Benzodiazepines: alprazolam (Xanax), clonazepam (Klonopin), diazepam (Valium), lorazepam (Ativan) • Sleep medication (hypnotics): eszopiclone (Lunesta), zaleplon (Sonata), zolpidem (Ambien)
Stimulants	<ul style="list-style-type: none"> • Amphetamines (Adderall, Dexedrine, Biphphetamine) • Methylphenidate (Concerta, Ritalin, Metadate, Methylin, Focalin)
Source: NIDA, 2017b.	

Sources of Drug Diversion

Drug diversion can occur anywhere along the continuum: manufacturer, wholesale distributor, retail pharmacy, hospitals and other healthcare organizations, prescribers, healthcare professionals who administer the medication, or the patient for whom the medication is prescribed.

Data reveals that a primary source of drug diversion for nonmedical use comes from friends and relatives, and users often obtain the drugs free of charge (SAMHSA, 2013a). The perception that prescription drugs are safe and that it is acceptable to share them with friends and family members has fueled this disturbing trend.



PATIENT DIVERSION

Patients may be involved in drug diversion by:

- Sharing medication with family members or friends to help alleviate their pain
- Selling prescription drugs they obtained legally
- Soliciting multiple physicians (“doctor shopping”) to obtain pain medication under false pretenses
- Purchasing prescription medication from rogue websites that exist under the guise of a legitimate pharmacy
(U.S. DHHS, 2012)

HEALTHCARE PROVIDER DIVERSION

Physicians, nurses, and other healthcare providers may knowingly or unknowingly be involved in drug diversion by:

- Prescribing controlled substances to patients who have given false information
- Prescribing controlled substances to patients involved in “doctor shopping”
- Prescribing controlled substances to patients who are selling their prescription drugs
- Intentionally prescribing controlled substances for illegal purposes
- Diverting controlled substances for personal use or financial gain
(U.S. DHHS, 2012)

SOURCES WHERE DRUGS WERE OBTAINED FOR NONMEDICAL USE

(Among past users ages 12 or older, United States, 2013–2015)

- 40.5%, free from friend/relative
- 9.4%, bought from friend/relative
- 3.8%, took from friend/relative without asking
- 34.0%, prescription from one doctor
- 1.7%, prescriptions from more than one doctor
- 0.7%, stole from doctor’s office, clinic, hospital, pharmacy
- 4.9%, bought from drug dealer/stranger
- 4.9 %, some other way

Source: SAMHSA, 2016.



RED FLAGS FOR DRUG DIVERSION**Prescribers**

- Cash-only patients and/or no acceptance of worker's compensation or private insurance
- Prescribing of the same combination of highly abused drugs
- Prescribing the same, typically high, quantities of pain drugs to most or every patient
- High number of prescriptions issued per day
- Out-of-area patient population

Dispensers

- Dispensing a high percentage controlled to non-controlled drugs
- Dispensing high volumes of controlled substances generally
- Dispensing the same drugs and quantities prescribed by the same prescriber
- Dispensing to out-of-area or out-of-state patients
- Dispensing to multiple patients with the same last name or address
- Sequential prescription numbers for highly diverted drugs from the same prescriber
- Dispensing for patients of controlled substances from multiple practitioners
- Dispensing for patients seeking early prescription refills
(WVEPMP, 2016)

CHALLENGES IN THE MANAGEMENT OF CHRONIC PAIN

It is important for clinicians to consider not only the serious consequences that may result from misuse of pain medication but also the looming threat of undertreated pain, which can also have serious health consequences. Chronic pain is a complex phenomenon that involves physical as well as psychological and environmental factors. It is a debilitating condition that is hard to diagnose and difficult to treat.

Over the past two decades, lack of knowledge about the complex nature of chronic pain combined with liberal prescribing of opioid medication to treat chronic pain has contributed to the widespread problem of prescription drug abuse, diversion, and overdose deaths. An understanding of current evidence-based treatment modalities and precautions in opioid prescribing can improve quality of life for those who suffer in pain while reducing adverse consequences that can result from addiction.



Types of Pain

Traditionally, pain has been treated as a symptom of some other disease process, and the primary goal of treatment has focused on the alleviation of pain. With improved medical technology and imaging over the past two decades, it is clear that chronic pain is very different from acute pain, and its treatment poses challenges that clinicians do not face when treating acute pain. Chronic pain can fundamentally alter the peripheral and central nervous systems. It is a complex chronic disease much like other chronic diseases that can be treated and managed but may never be cured.

Diagnosing and identifying the source of chronic pain can be difficult because multiple physical, psychological, and environmental factors may be interwoven that can potentiate the patients' experience of pain. A fundamental understanding of the difference between acute and chronic pain and the different treatment goals for acute pain, chronic cancer or end-of-life pain, and chronic noncancer pain is important for all clinicians.

The International Association for the Study of Pain (2012) defines pain as “an unpleasant sensory or emotional experience associated with actual or potential tissue damage or described in terms of such damage.” Pain is broadly categorized as acute pain or chronic pain.

CATEGORIES OF PAIN

- **Nociceptive:** Pain arising from noxious stimuli affecting thermal, mechanical, or chemical receptors (e.g., sprains, bone fractures, burns, bumps, bruises, inflammation from arthritis, mechanical lower back pain, sports/exercise injury)
- **Neuropathic:** Abnormal processing of sensory input by the central nervous system and/or peripheral nervous system (e.g., postherpetic neuralgia; reflex sympathetic dystrophy; phantom pain; trigeminal neuralgia; peripheral neuropathy that may result from diabetes, chronic alcohol use, exposure to toxins such as chemotherapy, or vitamin deficiencies)
- **Mixed:** Combination of nociceptive and neuropathic pain (e.g., migraine headaches, fibromyalgia, myofascial pain syndrome)
(WVEPMP, 2016)

ACUTE PAIN

Acute pain is a natural sensation triggered in the nervous system as a warning of possible injury or illness. It is a normal mechanism in the body and serves a very useful purpose. Acute pain generally has a short duration and subsides as the tissue injury or illness heals. It responds well to analgesics and other treatment modalities. The primary goal in managing acute pain is to gain rapid effective control of the pain and eliminate further sources of pain. This is important because when acute pain is left untreated, there is a risk that acute pain will become chronic.



CHRONIC PAIN

Chronic pain is a relentless pathologic condition that occurs when pain signals from the nervous system fire persistently over a period of time. Chronic pain may occur as a result of an initial injury that has healed, or it may result from an ongoing and persistent condition. Surprisingly, chronic pain can also occur in the absence of any past injury or evidence of physiologic anomaly.

Chronic pain is ongoing and usually lasts longer than six months. This type of pain can continue even after the injury or illness that caused it has healed or gone away. Pain signals remain active in the nervous system for weeks, months, or years.

People who have chronic pain can have physical effects that are stressful on the body. These include tense muscles, limited ability to move around, a lack of energy, and appetite changes. Emotional effects of chronic pain include depression, anger, anxiety, and fear of reinjury. Such a fear might limit a person's ability to work or engage in leisure activities.

COMMON CONDITIONS ASSOCIATED WITH CHRONIC PAIN

- Abdominal pain
- Arachnoiditis
- Arthritis (osteo, rheumatoid)
- Back pain
- Chronic fatigue syndrome
- Complex regional pain syndrome
- Conversion disorder
- Degenerative disc disease
- Facial pain
- Fibromyalgia
- Foot and leg pain
- Headache
- Hip pain
- Irritable bowel syndrome
- Knee pain
- Neck pain
- Nerve pain
- Neuralgia
- Neuropathy (diabetic, peripheral)
- Phantom limb pain
- Piriformis syndrome
- Postsurgical pain



- Reflex sympathetic dystrophy
- Sciatica
- Shoulder pain
- Temporomandibular joint disorder
(Institute for Chronic Pain, 2017)

Management of Chronic Pain

Treatment for chronic pain varies depending on its etiology. Treatment for chronic cancer pain is very different than treatment for other types of chronic pain. Opioids are widely accepted in the treatment of chronic pain related to cancer or other end-of-life processes. However, there is much controversy about the efficacy of opioids for management of chronic pain not associated with cancer or other end-of-life processes. Based on extensive research into the efficacy of opioids, **CDC guidelines strongly discourage use of opioids for long-term chronic pain management**, citing evidence that other pain modalities are more effective and less risky (see also “CDC Guidelines” later in this course) (Dowell et al., 2016).

Effective management of chronic pain requires a multimodal, interdisciplinary approach that addresses not just physical functioning but also psychological and social functioning. Chronic pain treatment goes beyond relieving the physical symptoms of pain and aims to:

- Improve quality of life
- Increase functional ability
- Relieve associated psychological stressors
- Minimize risk of addiction

Approaches that incorporate physical and psychological components of pain management and utilize the expertise of various healthcare specialties are most effective. Recognizing the complex biological and psychosocial aspects of chronic pain challenges clinicians to tailor pain care to each person’s experience of pain. It is important to incorporate pharmacologic as well as nonpharmacologic modalities of treatment and to promote self-management as much as possible. Treating the physical, as well as using the mind’s ability to heal, will optimize the treatment process.

NONPHARMACOLOGIC INTERVENTIONS

There are many nonpharmacologic methods that can be used to help manage chronic pain. Some treatments are passive and require the assistance of trained specialists. Some treatments aim to improve function through restorative exercises. Other treatments focus on helping patients cope with chronic pain. Self-managed treatments may focus on improving function and coping in order to enhance quality of life.



Passive Treatments

Passive treatments are professionally directed and generally require the assistance of a specialist trained in the specific modality. Passive treatments aim to reduce pain at the tissue or regional level to improve functional ability. They may include interventions such as nerve blocks, surgically implanted stimulators, transcutaneous electrical stimulation, trigger point injections, acupuncture, and physical manipulation techniques such as those applied by a chiropractor.

Functional Restoration Therapy

Functional restoration therapy aims to enhance function and improve strength, endurance, flexibility, and cardiovascular fitness. Personalized exercise activities and physical therapy are two common restorative interventions that have been used to treat chronic pain and improve functional goals.

Psychotherapeutic Interventions

Psychotherapeutic interventions focus on helping patients cope with chronic pain to improve their quality of life. Cognitive-behavioral therapies and relaxation techniques such as progressive relaxation and biofeedback are interventions that have been used effectively to improve quality of life for patients with chronic pain.

Self-Managed Treatments

For chronic pain, self-managed treatments are an important part of the treatment plan. These may include self-massage; using braces, assistive devices, or compression devices; and applying heat/cold compresses.

Self-management activities aimed at preventing, reducing, or coping with chronic pain may also include healthy dietary habits, pacing of activities, distraction techniques such as reading or engaging in hobbies, keeping a pain diary, meditation, Reiki, self hypnosis, and movement exercises such as tai chi, swimming, and yoga.

PHARMACOLOGIC INTERVENTIONS

There are many different categories of medication that can be used alone or in combination to help relieve pain. Some medications have an analgesic effect, while others work synergistically with other medications to reduce the experience of pain.



Opioid Medications

Opioid analgesics are widely accepted in the treatment of severe acute pain and chronic pain that is associated with malignant disease or end of life. However, **there is much controversy about opioid use** in the treatment of chronic noncancer pain.

A number of studies aimed at evaluating the effectiveness of opioid therapy in chronic pain have been published. Based on current evidence, the value of long-term opioid use in the treatment of chronic pain is questionable, and epidemiological studies report the failure of opioids to actually improve function and quality of life in chronic pain patients (Dowell et al., 2016).

Long-term use of opioids can lead to a number of adverse consequences, including hormonal and immune system compromise, tolerance, hyperalgesia, and addiction.

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)

For most pain conditions, NSAIDs are the cornerstone of treatment. They work by blocking induction of the COX-2 enzyme, which inhibits prostaglandin synthesis. They reduce inflammation and relieve pain without inducing tolerance or dependence. They have proven to be effective for relief of pain resulting from trauma, arthritis, surgical procedures, and cancer, but a ceiling effect (maximum level of pain relief that cannot be exceeded even with more medication) reduces their efficacy with more severe pain conditions. NSAIDs are also associated with risk for gastric irritation and bleeding. Selective COX inhibitors have also been developed that do not compromise gastric mucosa.

There are three categories of NSAID medication:

- Irreversible COX inhibitors (aspirin)
- Reversible COX inhibitors (ibuprofen and naproxen)
- Selective COX inhibitors (cetecoxib)

Acetaminophen

Acetaminophen is a commonly used nonsalicylate analgesic with antipyretic properties like aspirin but without the antiplatelet effects. Acetaminophen does not compromise the gastric mucosa, making it a better alternative for some patients.

Antidepressant Medications

Antidepressants are commonly used in the treatment of chronic pain even when patients are not specifically diagnosed with depression. They may provide relief of pain due to arthritis, peripheral neuropathy and other types of nerve pain, tension headaches,



fibromyalgia, low back pain, and pelvic pain. The mechanism by which antidepressant medication works to relieve pain is not fully understood.

Three categories of antidepressant medications are commonly used in combination with other medication for chronic pain. They include:

- **Tricyclic antidepressants (TCAs).** Well known for their antidepressant properties; have analgesic properties that are independent of their effects on depression; affect multiple receptor systems and thus may have many side effects that can limit their use for many patients. Examples: clomipramine (Anafranil), amitriptyline (Elavil), nortriptyline (Pamelor), doxepin (Sinequan).
- **Selective serotonin reuptake inhibitors (SSRIs).** Work synergistically with other analgesics to reduce pain; may not have direct analgesic effects, but since depression can sometimes magnify a patient's experience of pain, any drug that relieves depression may also help reduce pain. Examples: citalopram (Celexa), paroxetine (Paxil), fluoxetine (Prozac), sertraline (Zoloft).
- **Serotonin and norepinephrine reuptake inhibitors (SNRIs).** Relieve depression and work synergistically with other analgesics to reduce pain; have fewer side effects than tricyclic antidepressants. Examples: duloxetine (Cymbalta), venlafaxine (Effexor), mirtazapine (Remeron).

Neuroleptic Drugs

Neuroleptic drugs (antiseizure medications) are often prescribed in combination with other analgesic medication to help patients with nerve pain and neuropathies. These drugs are membrane-stabilizing medications that can help relieve pain related to peripheral and central nervous system dysfunction. The mechanism that allows these drugs to produce neuropathic analgesia is not well known but may be through multiple actions on the nerve cells. These drugs are well tolerated by most patients and seem to have some efficacy in the relief of pain caused by fibromyalgia, postherpetic neuralgia, diabetic neuropathy, and pain caused from spinal cord injury. Gabapentin (Neurontin) and pregabalin (Lyrica) are two commonly prescribed neuroleptic drugs.

Other Adjunct Medications

Other medications that may be used as adjuncts to chronic pain treatment include calcium channel blockers, corticosteroids, alpha-2 agonists, muscle relaxants, local anesthetics, N-methyl-aspartate receptor agonists (NMDAs), and topical agents.

RESPONSIBLE OPIOID PRESCRIBING

Responsible opioid prescribing requires balancing the risks with the benefits of opioids in the management of chronic pain. A balanced approach revolves around three key components:



- Patient assessment
- Treatment plans
- Periodic monitoring

Patient Assessment

A thorough patient assessment is critical prior to prescribing opioid medication for chronic pain. It is important to properly diagnose the painful condition to determine if opioid medication is an appropriate treatment. A well-documented patient history that includes past medical history, medication, habits such as smoking and alcohol use, family history, psychosocial history, and personal or family history of substance abuse is also important.

ASSESSING PAIN

Proper diagnosis of the painful condition is important to assure that opioid medication is an appropriate treatment. It can be challenging, however, since pain is subjective and multidimensional. The patient's self report of pain is the most reliable indicator, but perceptions of pain are influenced by many factors, including culture, environment, emotional state, sleep patterns, and habits.

Assessment of pain should include pain characteristics such as duration, location, intensity, and quality. Clinicians should also assess exacerbating and alleviating factors, present and past pain management interventions, and impact of pain on quality of life. There are many assessment tools available for use by clinicians (*see "Resources" at the end of this course*).

ASSESSING RISK

When clinicians assess chronic pain patients for opioid therapy, it is important to recognize two categories of risk: medical conditions that increase their risk for adverse events (e.g., respiratory depression) and physiologic, behavioral, and genetic risk factors.

Risk due to medical conditions should be assessed and documented as part of the patient's history and physical examination and the treatment plan adjusted accordingly to reduce risk of adverse events with opioid therapy. Older adults may be at higher risk because of cognitive decline and increased potential for falls. Patients with impaired renal or hepatic function, cardiopulmonary disease, mental health conditions, obesity, and sleep apnea are also at higher risk for adverse consequences when prescribed opioid medication.

Patients may also present with physiologic, behavioral, and genetic risk factors that may predispose them to abuse of opioid medication. A number of variables have been associated with a higher risk for misuse, abuse, and addiction. These include history of addiction in biological parents, current drug addiction in the family, regular contact with high-risk groups or activities, and personal history of illicit drug use or alcohol addiction. Screening tools that identify such



potential risks are important in the assessment of all patients who are prescribed opioid medication.

Treatment Plans

Responsible opioid prescribing calls for clinicians to develop treatment plans that focus on patient-centered outcomes that improve quality of life. A function-based treatment strategy aims to maximize the patient's quality of life and minimize the burden of their pain.

The following principles are important when developing a patient-centered treatment plan:

- Elimination of all pain is often not possible and should not be the primary goal of the treatment plan.
- Treatment goals should not focus exclusively on reducing a pain score.
- Functional goals that improve quality of life must be set collaboratively between the patient and the clinician.
- Functional goals established in the treatment plan must be realistic and achievable, verifiable, and meaningful to the patient.
- The treatment plan should include education about risks, benefits, side effects, and potential adverse consequences of opioid use.
- The treatment plan should include education about safe use, storage, and disposal of opioid medication.

A mutually agreed-upon treatment plan with specific functional goals should be documented, together with informed consent and patient education.

Periodic Monitoring

It is important to periodically reevaluate the appropriateness of continuing opioid therapy for chronic pain. As time passes, there are changes in pain etiology, health condition, progress toward functional goals, and addiction risk. All of these should be monitored on a regular basis to assure patient-centered outcomes. To corroborate self-reports, periodic monitoring should include urine tests and pill counts when appropriate and reports from the prescription drug monitoring program.

Identifying and managing chronic pain is a joint responsibility of the patient and the care provider. Working toward realistic goals and attention to balancing risk/benefit concerns are only effective with input from both partners. Clinicians must utilize screening and monitoring for all patients on chronic opioid therapy to document patient outcomes and progress toward functional goals. The Pain Assessment and Documentation Tool (PADT) is a practical tool that clinicians



can use at each patient visit and incorporate into electronic records (*see “Resources” at the end of this course*). It offers a simple checklist approach for monitoring the “Five As” of pain management.

THE FIVE As OF PAIN MANAGEMENT	
Analgesia	A reduction in pain
Activities of daily living	Improvement in level of function
Affect	Changes in mood
Adverse effects	Falls, decreased cognitive function, constipation, etc.
ADRBs	Aberrant drug-related behaviors
Source: FSMB, 2013.	

CDC Guidelines for Prescribing Opioids for Chronic Pain

Amidst a growing opioid epidemic in the United States, the CDC developed guidelines for prescribing opioids for chronic pain. These guidelines are not intended for patients who are in active cancer treatment, palliative care, or end-of-life care.

PURPOSE AND PRINCIPLES

The **purpose** of the guidelines is to:

1. Improve communication between clinicians and patients about the benefits and risks of using prescription opioids for chronic pain
2. Provide safer, more effective care for patients with chronic pain
3. Help reduce opioid use disorder and overdose

Three **principles** clearly articulated in the new CDC guidelines for prescribing opioids for chronic pain are as follows:

1. Nonopioid therapy is preferred for chronic pain outside of active cancer, palliative, and end-of-life care.
2. When opioids are used, the lowest possible effective dosage should be prescribed to reduce risks of opioid use disorder and overdose.
3. Clinicians should always exercise caution when prescribing opioids and monitor all patients closely (as described in the guidelines below).

The recommendations are divided into three specific areas for consideration; 1) Determining when to initiate or continue opioids for chronic pain; 2) opioid selection, dosage, duration, follow-up, and discontinuation; 3) assessing risk and addressing harms of opioid use.



CDC GUIDELINES

- **Opioids are not first-line therapy.** Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.
- **Establish goals for pain and function.** Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.
- **Discuss risks and benefits.** Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.
- **Use immediate-release opioids when starting.** When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting opioids.
- **Use the lowest effective dose.** When opioids are started, clinicians should prescribe the lowest effective dosage.
- **Prescribe short durations for acute pain.** Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed.
- **Evaluate benefits and harms frequently.** Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.
- **Use strategies to mitigate risk.** Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering **naloxone** when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥ 50 MME/day), or concurrent **benzodiazepine** use, are present.



- **Review PDMP data.** Clinicians should review the patient’s history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.
- **Use urine drug testing.** When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.
- **Avoid concurrent opioid and benzodiazepine prescribing.** Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.
- **Offer treatment for opioid use disorder.** Clinicians should offer or arrange evidence-based treatment (usually **medication-assisted treatment** with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.

(Dowell et al., 2016)

PREVENTING PRESCRIPTION DRUG ABUSE AND DIVERSION

One of the biggest challenges in healthcare practice today is how to provide safe and appropriate pain care without contributing to the widespread epidemic of prescription drug abuse and drug overdose deaths.

In 2011, the Office of National Drug Control Policy (ONDCP, 2011) released a prescription drug prevention plan that outlines prevention actions in four major areas:

- **Educating** patients and the general public on proper use, storage, and disposal of prescription medication is important to help change perceptions about the safety of prescription medication and reduce sharing of medication. Another high priority is widespread educational efforts aimed at healthcare professionals to assure appropriate prescribing and improve accountability of prescribers and patients.
- **Monitoring** patterns of use through surveillance systems and controlled substance monitoring programs can provide a better understanding of the problem so that appropriate preventive action can be taken. Prescription drug monitoring programs help identify high-risk users and high-risk prescribers, reduce “doctor shopping” and “pharmacy shopping,” and improve accountability.
- **Proper medication disposal** helps eliminate excess quantities of controlled substances and reduce the likelihood that these drugs will fall into the wrong hands.



- **Laws** to regulate distribution and reduce access to “pill mills” (doctors, clinics, and pharmacies that prescribe or dispense powerful narcotics inappropriately). Laws that establish stricter classification systems also help diminish widespread access and thus reduce the availability of excess drugs.

The ONDCP’s *National Drug Control Strategy Report* (2016) reaffirms the importance of these prevention strategies, highlights areas of progress made since 2011, and outlines new areas of emphasis to include:

- Need for patients and families to receive evidence-based treatment for substance use disorder
- Need for first responders to be equipped with naloxone (an opioid reversal drug to reduce overdose deaths)

Twenty-nine states receive funding from the CDC Prescription Drug Overdose: Prevention for States Program. The purpose of this program is to provide state health departments with the resources and support needed to advance interventions for preventing prescription drug abuse. Some states are focusing on strategies to expand prescription drug monitoring programs by making them easier to use and more accessible. Other states are focusing on community and health system interventions such as expanding the use of evidence-based opioid prescribing guidelines. Other identified priorities for the Prevention for States Program include policy evaluations to better understand what works to reduce prescription drug overdose and rapid response to deal with emerging crisis (CDC, 2017b).

Educational Initiatives

Federal, state, local and nongovernmental partners have worked together on a number of initiatives to educate the nation on the risks of nonmedical use of prescription pain medications. These efforts include providing training and resources for community-based providers, enhancing prescriber skills in terms of pain management, helping patients learn to use opioids safely, identifying substance use disorder, and providing patients with necessary treatment.

Medical schools and the Addiction Medicine Foundation have committed to expand substance use education in medical school curricula and create fellowship positions to offer advanced training in primary care and pediatric programs (ONDCP, 2016).

RISK EVALUATION AND MITIGATION STRATEGY

To help reduce serious adverse outcomes resulting from inappropriate prescribing, the Food and Drug Administration (FDA, 2014) requires a Risk Evaluation and Mitigation Strategy (REMS) for extended-release and long-acting opioid analgesics. This has prompted a comprehensive effort to educate patients, the general public, and healthcare providers on risks associated with these opioid medications.



Recent modifications to the REMS include revisions to the healthcare professional training, which requires additional educational content in pain management, including the principles of acute and chronic pain management, nonpharmacologic treatments for pain, and nonopioid pharmacologic treatments.

CLINICAL GUIDELINES FOR MANAGING PAIN

In 2016 the CDC released guidelines for prescribing opioids for chronic pain (see above). These guidelines equip primary care providers with information and recommendations to improve communication with patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy (ONDCP, 2016). A nationwide effort is underway to educate all healthcare providers on these guidelines.

CLINICAL DECISION-SUPPORT RESOURCES

National Institute on Drug Abuse: Medical & Health Professional Resources provides free online tools and resources to help clinicians make better clinical decisions. Clinicians can access free drug abuse information, treatment information, patient materials, opioid prescribing guidelines, and screening tools.

Likewise, the CDC's 2016 guidelines are accompanied by clinical decision-support tools and resources, including a mobile app, pocket guide to tapering opioids, checklist for prescribing opioids for chronic pain, nonopioid alternative treatments, resources for patients, and much more. These resources are easily accessible and can be downloaded online.

(See "Resources" at the end of this course.)

SCREENING, BRIEF INTERVENTIONS, AND REFERRAL TO TREATMENT

Screening, Brief Interventions, and Referral to Treatment (SBIRT) is a comprehensive prevention approach that has gained national recognition and been recommended as public health policy. It is an evidence-based approach to early identification of people at risk for substance abuse. The focus is to identify those at risk and intervene in an atmosphere that is supportive, nonjudgmental, and that encourages self-examination and self-empowerment.

Prescription Drug Monitoring Programs

Prescription drug monitoring programs (PDMP) are statewide electronic databases that gather information from pharmacies on controlled substances. Growing recognition that PDMPs are a vital tool for clinicians to address the prescription drug epidemic has led to increased public and private funding to support widespread expansion of these programs. As of 2016, 49 states and Washington, D.C., have operational PDMPs, and expansion of data sharing hubs now enable 43 states to share PDMP data (ONDCP, 2016).



According to a recent survey by the AMA Opioid Task Force, registrations with state-based PDMPs by physicians and other healthcare professionals grew from 471,896 in 2014 to 1,322,996 in 2016, demonstrating a 180% increase in use of PDMPs (AMA, 2017).

ELECTRONIC HEALTH RECORD INTEGRATION SYSTEMS

Electronic health record integration systems were authorized by the Public Health Service Act and provide for agreements between PDMPs and existing electronic health records. The intent is to improve real-time access to PDMP data so physicians and other healthcare providers can use the information to make clinical decisions at the point of care. When the data is available during the normal workflow, it is more likely to be utilized for clinical decision-making.

Proper Medication Disposal

There are a number of organized statewide and community efforts to improve the safe storage and disposal of prescription drugs. These initiatives include providing patients with prescription lock boxes, providing prescription disposal locations, and participation in DEA-sponsored National Prescription Drug Take-Back programs. As of October 2016, more than 6.4 million pounds of prescription drugs were collected through “take-back” initiatives across the country (ONDCP, 2016).

Legal and Regulatory Oversight

All controlled substances have some level of abuse potential and are regulated by the U.S. Controlled Substance Act. They are classified into categories based on their medical use and their abuse potential. The FDA supports revisions for drug labeling, stricter drug classifications, and the development of abuse deterrent formulas. The FDA also requires an REMS to manage known or potential serious risks associated with long-acting and extended-release opioids (see above).

States provide oversight by passing legislation aimed at reducing prescription drug abuse and diversion while safeguarding legitimate access to pain medication. State legislation may include laws that:

- Require a physical exam before prescribing controlled substances
- Require the use of tamper-resistant prescription pads
- Set prescribing limits on controlled substances
- Prohibit “doctor shopping”
- Require patient identification before dispensing controlled substances



The CDC has developed a state laws website to provide an up-to-date, state-by-state snapshot of legal and regulatory strategies that are being implemented to address prescription drug abuse and diversion in every state (see “Resources” at the end of this course).

CONCLUSION

Currently, there is an epidemic of prescription drug abuse, diversion, and overdose deaths across the country. Recent governmental reports indicate that death rates from drug overdose are still on the rise despite stepped-up efforts by public health authorities. The National Center for Health Statistics reported that overdose deaths reached a record high in 2016, and with state data and anecdotal information, many experts fear this opioid epidemic has still not reached its peak.

The complexity of this crisis creates special challenges for federal, state, and local governments as well as nongovernmental partners who must confront the growing impacts on our communities. Overprescribing opioids for more than a decade has not only contributed to prescription opioid addiction but has led to a sharp increase in opioid addiction overall, which is associated with a significant increase in heroin abuse, IV injection use, HIV, hepatitis, and overdose deaths involving all opioids. A multifaceted public health approach is necessary in order to effectively reduce opioid-related morbidity and mortality.

The opioid epidemic in this country has evolved and escalated along with an epidemic of chronic pain. With current evidence affirming that less-risky pain alternatives are just as effective as opioids for managing chronic pain, it is clear that there must be a cultural shift away from treating chronic pain with opioid medication.

Nurses are in a unique position to address this dual epidemic, but they must gain clinical skills and knowledge in both the assessment and management of addiction risk and best practices for safe opioid prescribing. A comprehensive approach that supports safe and effective pain management without increasing patient risk for addiction must become a priority in every clinical practice setting.



RESOURCES

CDC Guideline for Prescribing Opioids for Chronic Pain

<https://www.cdc.gov/drugoverdose/prescribing/guideline.html>

CDC Guideline Resources

<https://www.cdc.gov/drugoverdose/prescribing/clinical-tools.html>

Opioid Risk Tool

<https://www.drugabuse.gov/sites/default/files/files/OpioidRiskTool.pdf>

Overdose Prevention in States

<https://www.cdc.gov/drugoverdose/states/index.html>

Pain Assessment and Documentation Tool

<https://www.drugabuse.gov/sites/default/files/files/PainAssessmentDocumentationTool.pdf>

State Prescription Drug Laws

<https://www.cdc.gov/drugoverdose/policy/laws.html>

Tools and resources (National Institute on Drug Abuse Medical & Health Professional Resources)

<https://www.drugabuse.gov/nidamed-medical-health-professionals/tool-resources-your-practice>

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TEST

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1. Which statement best describes the current prescription drug abuse problem in the United States?
 - a. Prescription drugs are now the most widely abused category of drugs.
 - b. Prescription drugs are more deadly than most street drugs.
 - c. Prescription opioids are the drugs most commonly associated with overdose deaths.
 - d. Drug abuse is the second leading cause of accidental death in the United States.

2. Which statement best describes recent trends in opioid prescribing in the United States?
 - a. Between 2015 and 2016, the number of opioid prescriptions in the United States increased by nearly 6% over the previous year.
 - b. A decrease in the number of opioid prescriptions in the United States in recent years has led to a decrease in the number of overdose deaths.
 - c. The widespread availability of opioid prescriptions continues to rise in the United States, but deaths from overdose are declining.
 - d. Between 2012 and 2016, the number of opioid prescriptions nationwide decreased by 43 million.

3. Which patient is most likely to abuse or misuse drugs if prescribed opioids for chronic pain?
 - a. A 42-year-old man with no personal or family history of substance abuse but who has many friends who drink alcohol and smoke marijuana
 - b. A 23-year-old woman with a past history of sexual abuse
 - c. A 28-year-old nursing student with a father who is a recovering alcoholic and a mother who is on opioid treatment for chronic migraine headaches
 - d. A 38-year-old home health nurse struggling with anxiety and depression but who has no personal or family history of substance abuse

4. A 42-year-old male patient has been taking oxycodone to help alleviate chronic shoulder pain sustained in a motorcycle accident last year. Which patient behavior would a clinician consider to be the **most likely** example of aberrant drug-related behavior (ADRB)?
 - a. He is somewhat demanding in his request for additional pain medication at a follow-up visit.
 - b. His wife reports he has been drinking excessively in the evenings to deal with the pain.
 - c. He specifically asks for Lortab, 10 mg, orally for pain relief.
 - d. His wife reports he has saved extra medications from previous prescriptions.



- 5.** Which class of prescription drugs is most commonly associated with abuse, diversion, and overdose deaths?
- Sedatives
 - Opioids
 - Stimulants
 - Muscle relaxants
- 6.** Statistics indicate that the most common source from which individuals obtain controlled substances for nonmedical use is:
- Purchasing from drug dealers.
 - Through a prescription from a doctor.
 - Free from friends or relatives.
 - Stealing from a doctor's office, clinic, hospital, or pharmacy.
- 7.** Which is a "red flag" that may indicate drug diversion by a prescribing healthcare provider?
- Prescribing tramadol to a patient who was previously prescribed hydrocodone
 - Prescribing an opioid medication to a new patient who was previously treated with opioids
 - Prescribing opioids to cash-only patients
 - Prescribing adequate quantities of pain medication to a patient who is experiencing pain
- 8.** Peripheral neuropathy that may occur as a result of diabetes, chronic alcohol use, or exposure to toxins is an example of which category of pain?
- Acute
 - Nociceptive
 - Neuropathic
 - Mixed
- 9.** Acute pain is defined as:
- A normal mechanism that warns the person of possible injury or illness.
 - An inflammatory process that will eventually lead to chronic pain.
 - A condition that does not respond well to opioid analgesics.
 - An abnormal response to an injury or illness.



- 10.** Which statement **best** describes chronic pain?
- A normal mechanism that warns the person of possible injury or illness.
 - A pathologic condition that occurs when pain signals from the nervous system fire persistently over a period of time.
 - A relentless pathologic condition that responds well to opioid analgesics.
 - An inflammatory process that never heals.
- 11.** A common condition associated with chronic pain is:
- Bone fractures.
 - Burns.
 - Fibromyalgia.
 - Tissue damage.
- 12.** An aim of treatment within the realm of chronic pain management is:
- Letting the patient know they cannot have opioids.
 - Decreasing exercise.
 - Limiting treatment to physical functioning.
 - Relieving associated psychological stressors.
- 13.** When assessing a patient who has been prescribed an opioid medication for chronic pain management, the nurse considers the “Five As” by asking questions about the patient’s:
- Family history of chronic pain.
 - Daily activity level.
 - Satisfaction with the prescribing provider.
 - Ability to refill his or her prescription.
- 14.** CDC guidelines for prescribing opioids for chronic pain were developed with the purpose of:
- Assuring that patients can receive opioids for chronic pain.
 - Providing safer, more effective care for patients with chronic pain and reducing opioid use disorder and overdose.
 - Defining the best opioid options for patients with chronic pain.
 - Providing assistance for providers serving patients with active cancer treatment, palliative care, and end-of-life care.



- 15.** Which principle is articulated in the CDC guidelines for management of chronic pain?
- a. Nonopioid therapy is preferred for chronic pain outside of active cancer, palliative, and end-of-life care.
 - b. Opioids are safe and effective in the management of all types of chronic pain.
 - c. When opioids are used for chronic pain, dosage should be based on an evidence-based pain scale.
 - d. Nonopioid therapy is not recommended for active cancer, palliative, and end-of-life pain treatment.
- 16.** Which is **not** a CDC guideline for prescribing opioids for chronic pain?
- a. Extended-release opioids are recommended when starting treatment.
 - b. Medication-assisted treatment should be offered for patients with opioid use disorder.
 - c. Urine drug testing is recommended before starting opioid therapy.
 - d. Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain.
- 17.** The focus of Screening, Brief Interventions, and Referral to Treatment (SBIRT) services is on patients who are:
- a. Abusing controlled substances and requiring immediate referral for help.
 - b. At risk for addiction and requiring an outpatient treatment program as quickly as possible.
 - c. At risk for addiction and in need of intervention in an atmosphere that is supportive and encourages self-empowerment.
 - d. Diverting controlled substances and at risk for serious legal action.

