Drug Diversion Training and Best Practice Prescribing for Nurses
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COURSE OBJECTIVE: The purpose of this course is to prepare nurses 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.

LEARNING OBJECTIVES
Upon completion of this course, you will be able to:

• 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.
• Describe the key components to a balanced approach for prescribing controlled substances.
• Summarize the “Four As” of pain management.
• Describe screening tools for assessing patient risk for opioid addiction.
• Summarize current initiatives aimed at reducing prescription drug abuse and diversion.

INTRODUCTION

Prescription drug abuse is the fastest-growing drug problem in America. It affects every age, gender, ethnic group, and socioeconomic class and is contributing significantly to the overall drug abuse epidemic in this country. Prescription drug abuse is a problem that must be addressed
within the healthcare system. Serious and deadly consequences that have occurred from nonmedical use of prescription drugs suggest the need to reevaluate chronic pain treatment and prescribing practices that are contributing to the nation’s current abuse and diversion of prescription medications.

Nurses are in a unique position to address the problem of prescription drug abuse and diversion 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. Evidence-based guidelines for management of chronic pain have evolved into best practices for prescribing controlled substances, particularly opioid medication, that will balance their potential risks and benefits. An understanding of the challenges in chronic pain management as well as current guidelines for more responsible opioid prescribing will prepare nurses to provide better pain care to patients while concurrently helping patients avoid addiction risk.

**Scope of the Problem**

Over the past two decades, prescription drug–related mortality has accelerated throughout the nation. Opioid pain relievers (also called prescription painkillers) such as oxycodone, hydrocodone, fentanyl, and hydromorphone are responsible for three fourths of all prescription drug overdose deaths and caused more than 16,600 deaths in the United States in 2010. Nationally, deaths involving opioids have more than quadrupled since 1999 (CDC, 2014).

The sharp rise in opioid overdose deaths closely parallels an equally sharp increase in the prescribing of these drugs. Opioid pain reliever sales in the United States quadrupled from 1999 to 2010. Similarly, the substance abuse treatment admission rate for opioid abuse in 2010 was seven times higher than in 1999. The severity of the epidemic varies widely across U.S. states and regions. For example, the state with the highest drug overdose death rate has a rate more than eight times that of the state with the lowest rate (CDC, 2014).

In addition to the human costs, the epidemic of prescription drug overdose imposes a major financial toll. Nonmedical use of opioid pain relievers costs U.S. insurance companies up to $72.5 billion annually in healthcare expenditures. The epidemic also imposes substantial costs on state Medicaid programs. A 2009 Government Accountability Office report found that in 2006–2007, roughly 65,000 Medicaid beneficiaries in five states incurred over $60 million in drug costs related to “doctor shopping” for controlled substance prescriptions (CDC, 2014).
DEFINITION OF TERMS
The following terms related to prescription drug abuse and diversion of controlled substances are used throughout this course.

**Prescription drug abuse and nonmedical use:** Used synonymously and broadly defined as the use of a medication without a prescription, in a way other than as prescribed, or for the experience or feelings elicited (NIDA, 2014b)

**Prescription drug diversion:** Illegal distribution or abuse of prescription drugs or their use for purposes not intended by the prescriber (HHS, 2012)

**Illicit drug use:** Illegal use of drugs, including the nonmedical use of prescription drugs (SAMHSA, 2014)

**Psychotherapeutics:** Drugs that have an effect on the function of the brain and that often are used to treat psychiatric/neurologic disorders; includes opioids, CNS depressants, and stimulants (NIDA, 2014b)

**Substance abuse:** A set of related conditions associated with the consumption of mind- and behavior-altering substances that have negative behavioral and health outcomes; may include alcohol, prescription drugs used nonmedically, and illicit drugs (HHS, 2011)

**Addiction:** A chronic, relapsing brain disease characterized by compulsive drug seeking and use, despite serious adverse consequences, and by long-lasting changes in the brain (NIDA, 2014b)

PRESCRIPTION DRUG ABUSE AND DIVERSION: SCOPE OF THE PROBLEM

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, 2014).

**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 (SAMHSA, 2014). 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.

Prescription-type psychotherapeutic drugs comprise four categories of drugs used nonmedically. These include pain relievers, tranquilizers, stimulants, and sedatives. (Nonmedical use of stimulants and of any prescription-type drug includes methamphetamine use.) In 2013 these four categories of drugs made up the second-highest illicit drug use category, with 6.5 million Americans (2.5% of the population) reporting past-month nonmedical use. Marijuana was the only drug category with higher past month illicit use (19.8 million users) (SAMHSA, 2014).

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 (EDs) on treatment related to recent use of prescription medication and other drugs (SAMHSA, 2013).

**Trends**

There has not been an overall change in the amount of pain that Americans report, yet the amount of prescription painkillers dispensed in the United States quadrupled between 1999 and 2013 (CDC, 2015).

Deaths from prescription painkillers have also quadrupled since 1999, killing more than 16,000 people in 2013. Nearly two million Americans aged 12 or older either abused or were dependent on opioids in 2013 (CDC, 2015).

In 2008, it was estimated that illicit use of pharmaceutical drugs were involved in 1 million ED visits, with the most common drug categories being opioid painkillers and other psychotherapeutic drugs such as sedatives and antidepressants. In 2011, DAWN estimated an increase to 1.24 million ED visits related to pharmaceutical drugs, and more than half of the ED visits involved multiple drugs (SAMHSA, 2013).

Between 2004 and 2011, medical emergencies associated with nonmedical use of pharmaceuticals increased 132% overall. Medical emergencies involving opioid medication increased 183% during this same time period (SAMHSA, 2013).

In 2013, the highest rate of past-month illicit drug use including use of prescription drugs was among 18- to 25-year-olds (21.5%). This rate was similar to the rates in 2009 to 2012 (ranging from 21.3% to 21.6%), which was consistent with the steady rate of current marijuana use in this age group during this time (19.1% in 2013 and ranging from 18.2% to 19.0% in 2009 to 2012). Among young adults aged 18 to 25, the rate of current nonmedical use of prescription-type drugs in 2013 was 4.8%, which was similar to the rates in 2011 (5.0%) and 2012 (5.3%), but it was
lower than the rates in the years from 2002 to 2010 (ranging from 5.5% to 6.5%) (SAMHSA, 2014).

Among youths aged 12 to 17, comparing past-month illicit use in 2013 to previous years, the rate was lower in 2013 than in 2002 to 2007 (ranging from 9.6% to 11.6%) and in 2009 to 2012 (ranging from 9.5% to 10.1%) (SAMHSA, 2014).

These trends are important because youth are particularly vulnerable to addiction, and early use of prescription drugs for nonmedical purposes has been associated with illicit use of other drugs. The rate of use of other illicit drugs is significantly higher among individuals who have abused prescription drugs (see graph below) (SAMHSA, 2014).

![Greater Lifetime Use of Illicit Drugs among Prescription Opiate Abusers](image)

Percentage of individuals using illicit drugs according to whether they have abused prescription drugs. (Source: NIDA, 2014b.)

Drug overdose was the leading cause of injury death in 2013. Among people 25 to 64 years old, drug overdose caused more deaths than motor vehicle traffic crashes. There were 43,982 drug overdose deaths in the United States in 2013. Of these, 22,767 (51.8%) were related to prescription drugs (CDC, 2015).

Of the 22,767 deaths relating to prescription drug overdose in 2013, 16,235 (71.3%) involved opioid painkillers, and 6,973 (30.6%) involved benzodiazepines. People who died of drug overdoses often had a combination of benzodiazepines and opioid painkillers in their bodies (CDC, 2015).
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 has drastically increased since the 1990s—from 76 million prescriptions in 1991 to 210 million subscriptions in 2010—creating a significant increase in the environmental availability of opioids and making them more accessible for nonmedical use (NIDA, 2014b).

MORE AGGRESSIVE PAIN MANAGEMENT PRACTICES

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

The Federation of State Medical Boards responded in 1998 by releasing “reformed guidelines” that supported 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 also have driven financial incentives aimed at 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.

PATIENT PERCEPTION AND LACK OF KNOWLEDGE

Patients’ perceptions about the safety and use of prescription drugs also played a 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.

Impacts of Prescription Drug Abuse

SOCIETAL

There is a tremendous societal burden associated with prescription drug abuse. The number of
lives lost is one measurable outcome that has ignited a nationwide effort to address the problem.
More subtle costs that are not as easily recognized can be seen 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

While the economic cost of the broader substance abuse problem in this country has been
extensively studied, costs specific to nonmedical prescription drug use is limited. Hansen and
colleagues (2011) evaluated specific economic costs related to nonmedical use of prescription
drugs and estimated the cost to be approximately $53.4 billion in 2006. Drugs that contributed
most to the economic burden were oxycontin, oxycodone, hydrocodone, propoxyphene, and
methadone. Costs were attributed to lost productivity ($42 billion), criminal justice costs ($8.2
billion), drug abuse treatment ($2.2 billion), and medical complications related to prescription
drug abuse ($944 million).

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”) (HHS, 2012).
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. A personal or family history of alcohol or drug abuse accounts for as much as 60% of a person’s risk (NIDA, 2014a). It is also the one factor that is most strongly predictive of drug abuse and aberrant drug-related behaviors (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.

Patient Risk Factors and Screening

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.

<table>
<thead>
<tr>
<th>ABBERANT DRUG-RELATED BEHAVIORS (ADRB)</th>
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<tbody>
<tr>
<td><strong>More</strong> predictive of addiction</td>
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<tr>
<td>• Selling prescription drugs</td>
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<tr>
<td>• Prescription forgery</td>
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<tr>
<td>• Stealing or borrowing drugs</td>
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<td>• Injecting oral formulations</td>
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<tr>
<td>• Obtaining prescription drugs from nonmedical sources</td>
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<tr>
<td>• Concurrent abuse of alcohol or illicit drugs</td>
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<tr>
<td>• Multiple dose escalations or other noncompliance despite warnings</td>
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<tr>
<td>• Multiple episodes of prescription loss</td>
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<tr>
<td>• Repeatedly seeking prescriptions from other MDs or EDs without informing primary prescriber</td>
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<tr>
<td>• Deterioration in ability to function at work, in family, or socially</td>
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<tr>
<td>• Resistance to changes in therapy despite evidence of adverse physical or psychological drug effects</td>
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### Less Predictive of Addiction

<table>
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<th>Less Predictive of Addiction</th>
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<tbody>
<tr>
<td>• Aggressive complaining for more drugs</td>
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</tr>
<tr>
<td>• Drug hoarding</td>
<td></td>
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<tr>
<td>• Requesting specific drugs</td>
<td></td>
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<tr>
<td>• Acquiring similar drugs from other MDs</td>
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</tr>
<tr>
<td>• Unsanctioned dose escalation or other noncompliance on more than one occasion</td>
<td></td>
</tr>
<tr>
<td>• Unapproved use of drug to treat another symptom</td>
<td></td>
</tr>
<tr>
<td>• Resistance to change in therapy associated with “tolerable” adverse effects, with expressions of anxiety related to the return to severe symptoms</td>
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Source: Passik et al., 2006.

ADR is observable and must be identified and addressed by the clinician. Screening tools that can identify the patient’s potential for ADR are utilized by clinicians as part of the ongoing treatment plan when prescribing opioids for chronic pain.

The Current Opioid Misuse Measure (COMM) is a 17-question patient self-assessment survey designed to help clinicians determine if patients with pain are misusing their medication. The COMM is quick and easy to use and focuses on the current behavior of patients (see “Resources” at the end of this course).

### Healthcare Professional Risk Factors

Healthcare professionals, including nurses, are not immune to the physiologic, behavioral, and genetic risk factors that can predispose one to opioid abuse and diversion. In fact, healthcare professionals may be at higher risk because of frequent access and availability of drugs in the workplace.

While current literature suggests prevalence rates of substance abuse among health professionals mirrors the general population, these professionals have higher rates of abuse with benzodiazepines and opiates. Nurses who work in high-stress environments with easy access to controlled substances may be particularly vulnerable. Specialties such as anesthesia, emergency medicine, and psychiatry also have an increased incidence (Baldisseri, 2007).

There are a number of warning signs that should raise suspicion that a healthcare professional may be at risk for drug addiction. There are also specific behaviors that may be associated with diversion of medication by healthcare professionals.
WARNING SIGNS FOR OPIOID ABUSE/DIVERSION IN HEALTHCARE PROFESSIONALS

| Behavior changes that are suspicious and may suggest high risk | • Changes or shifts in job performance  
• Absences from the unit for extended periods  
• Frequent trips to the bathroom  
• Arriving late or leaving early  
• Making an excessive number of mistakes, including medication errors  
• Subtle changes in appearance that may escalate over time  
• Increasing isolation from colleagues  
• Inappropriate verbal or emotional responses  
• Diminished alertness  
• Confusion or memory lapses |
| --- | --- |
| Behaviors that may be associated with drug diversion | • Incorrect narcotic counts  
• Large amounts of narcotic wastage  
• Numerous corrections of medication records  
• Frequent reports of ineffective pain relief from patients  
• Offers to medicate co-workers’ patients for pain  
• Altered verbal or phone medication orders  
• Variations in controlled substance discrepancies among shifts or days of the week |
| Source: NCSBN, 2014. |

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, 2013). Opioid medications are effective for the treatment of pain and have been used appropriately to manage pain for millions of people. Increased rates of abuse and overdose deaths related to opioid pain relievers in the past decade 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 opioid medication.
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 nonmedical use by professionals, athletes, and older individuals. Nonmedical use of stimulants poses serious health consequences, including addiction, cardiovascular events, and psychosis (NIDA, 2014b).

The table below lists three categories of drugs that have the highest potential for abuse and diversion. Examples of drugs (including the generic name and brand names) that fall into each category are provided.

<table>
<thead>
<tr>
<th>DRUGS WITH HIGH POTENTIAL FOR DIVERSION/ABUSE</th>
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<tbody>
<tr>
<td><strong>Category</strong></td>
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<tr>
<td>Narcotics/opioids</td>
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<tr>
<td>• Codeine</td>
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<tr>
<td>• Fentanyl (Actiq, Duragesic, Sublimaze)</td>
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<td>• Hydrocodone or dihydrocodeinone (Vicodin, Lortab, Lorcet)</td>
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<td>• Hydromorphone (Dilaudid)</td>
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<td>• Meperidine (Demerol)</td>
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<td>• Methadone (Methadose, Dolophine)</td>
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<td>• Morphine (Roxinol, Duramorph)</td>
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<tr>
<td>• Oxycodone (OxyContin, Percodan, Percocet</td>
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<tr>
<td>• Oxymorphone (Opana)</td>
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<tr>
<td>CNS depressants</td>
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<tr>
<td>• Barbituates: pentobarbital (Nembutal), phenobarbital (Luminal)</td>
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<tr>
<td>• Benzodiazepines: alprazolam (Xanax), chlorodiazepoxide (Limbitrol), clonazepam (Klonopin), diazepam (Valium), lorazepam (Ativan), triazolam (Halcion)</td>
</tr>
<tr>
<td>• Sleep medication (hypnotics): eszopiclone (Lunesta), zaleplon (Sonata), zolpidem (Ambien)</td>
</tr>
<tr>
<td>Stimulants</td>
</tr>
<tr>
<td>• Amphetamines (Adderall, Benzedrine)</td>
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<tr>
<td>• Methylphenidate (Concerta, Ritalin)</td>
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Source: NIDA, 2015.
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.

The NSDUH examines various sources where users obtain drugs to better understand where prescription drugs are most likely to be diverted for nonmedical use. Data collected in 2012 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. 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.

**SOURCES WHERE DRUGS WERE OBTAINED FOR NONMEDICAL USE**
(Among past users ages 12 or older, United States, 2012–13)

- 53.0%, free from friend/relative
- 21.2%, one doctor
- 14.6%, bought/took from friend/relative
- 4.3%, drug dealer/stranger
- 2.6%, more than one doctor
- 0.1%, bought on Internet
- 4.3%, other

Source: SAMHSA, 2014.

**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
  (HHS, 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

(HHS, 2012)

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.

Management of chronic pain is challenging for the clinician and the patient because it may manifest as physical symptoms but also encompass many other facets of human suffering. Chronic pain drives more people to seek medical care than any other health condition and is a primary reason people take medication.

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.

The competing responsibilities of balancing pain care and preventing prescription drug abuse create a challenge for the clinician. 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.

Nursing Responsibilities in Pain Care

Nurses have a responsibility to ensure safe, high-quality pain care based on scientific principles and best practices. They play a vital role in the management of pain. Nurses assess and document pain and pain treatment, administer pain medication, provide counseling and education to patients, assist with complementary and alternative therapies, and serve as patient and family advocates. Advanced practice nurses with prescriptive authority may prescribe opioid medications and other treatments to help alleviate pain.
Current knowledge about the epidemiology of chronic pain, the nature of chronic pain as a disease, effective methods of pain management, universal precautions to reduce opioid risk, and statutory requirements for prescribing controlled substances is important for all nurses.

Epidemiology

More than 100 million Americans are affected by chronic pain. This is more than the total number of Americans with heart disease, cancer, and diabetes combined. Pain is the most prevalent workforce health condition and contributes to reduced work performance, absenteeism, unemployment, and long-term disabilities. Chronic pain costs our nation nearly $635 billion per year in medical treatment and lost productivity (IOM, 2011).

Recent studies suggest that chronic pain is more common in females and in adults who are poor and of lower socioeconomic class. Adults aged 65 and older who were covered by Medicaid were more likely to have chronic pain conditions than those with private insurance. Results from a National Health Interview Survey in 2010 also suggest that educational level is a factor; adults who had a bachelor’s degree or higher were less likely to experience chronic pain than those who did not graduate from high school (CDC, 2012).

There are a number of common chronic conditions that are associated with chronic pain, including low back pain, osteoarthritis, fibromyalgia, and headache (Chou et al., 2009). Recent data indicate that low back pain is the most common chronic pain condition (28.1%), followed by knee pain (19.5%), severe headache or migraine (16.1%), neck pain (15.1%), shoulder pain (9.0%), finger pain (7.6%), and hip pain (7.1%) (CDC, 2012).

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.

**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 not associated with cancer and other end-of-life processes is collectively referred to as chronic noncancer pain (CNCP). CNCP is pain that has persisted after reasonable medical efforts have been made to relieve the pain or cure its cause and that has continued either continuously or episodically for longer than three months. CNCP does not include pain associated with a terminal condition. Some other common CNCP conditions include back pain, osteoarthritis, fibromyalgia, and headache (Chou et al., 2009).

**Effective Chronic Pain Management**

Treatment for chronic pain varies depending on its etiology. Treatment for chronic cancer pain is very different than treatment for chronic noncancer 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 noncancer pain (Chou et al., 2009).

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.

**PHARMACOLOGIC INTERVENTIONS**

**Opioid Medication**

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 (Manchikanti & Singh, 2008). Long-term use of opioids can lead to a number of adverse consequences, including hormonal and immune system compromise, tolerance, hyperalgesia, and addiction.

The American Pain Society and the American Academy of Pain Medicine commissioned an expert panel to review evidence on the efficacy of chronic opioid therapy (COT) for treatment of chronic noncancer pain. It was concluded that while COT can be an effective treatment for patients who are carefully selected and monitored, COT is also associated with potentially serious harm. Clinicians must have advanced clinical skills and knowledge about safe prescribing practices and risk assessment to provide safe and effective care to chronic pain patients (Chou et al., 2009).

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<th>MYTHS AND FACTS ABOUT CHRONIC OPIOID THERAPY</th>
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<tr>
<td><strong>Myth</strong></td>
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<tr>
<td>Opioid therapy for chronic pain is supported by strong evidence.</td>
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<td>Physical dependence only happens with high doses over long periods of time.</td>
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Addiction is rare in patients receiving medically prescribed chronic opioid therapy. Estimates range between 4% and 26% of patients receiving chronic opioid therapy who have an opioid use disorder. Among patients without an opioid use disorder, more than 1 in 10 misuse opioids by intentional over-sedation, concurrently using alcohol for pain relief, hoarding medications, increasing doses on their own, and borrowing opioids from friends.

Extended-release opioids are better than short-acting opioids for managing chronic pain. Extended-release opioids have not been proven to be safer or more effective than short-acting opioids for managing chronic pain.

Opioid overdoses only occur among drug abusers and patients who attempt suicide. Patients using prescription opioids are at risk of unintentional overdose and death. This risk increases with dose and when opioids are combined with other CNS depressants like benzodiazepines and alcohol.

Dose escalation is the best response when patients experience decreased pain control. When treating chronic pain, dose escalation has not been proven to reduce pain or increase function, but it can increase risks.


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

**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.

**Nonsteroidal 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)

**Antidepressant Medication**

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.** These drugs are well known for their antidepressant properties. They also have analgesic properties that are independent of their effects on depression. Tricyclic antidepressants affect multiple receptor systems and thus may have many side effects that can limit their use for many patients.

- **Selective serotonin reuptake inhibitors (SSRIs).** These drugs work synergistically with other analgesics to reduce pain. They 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.

- **Serotonin and norepinephrine reuptake inhibitors (SNRIs).** These drugs relieve depression and are work synergistically with other analgesics to reduce pain. They have fewer side effects than tricyclic antidepressants.

<table>
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<tr>
<th>ANTIDEPRESSANTS COMMONLY PRESCRIBED FOR CHRONIC PAIN</th>
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| Tricyclic antidepressants                           | Antidepressant properties with analgesic properties independent of their effect on depression | • Anafranil (clomipramine)  
• Elavil (amitriptyline)  
• Pamelor (nortriptyline)  
• Sinequan (doxepin) |
| Selective serotonin reuptake inhibitors (SSRIs)    | May not have direct analgesic effects but work synergistically with analgesics to help relieve chronic pain | • Celexa (citalopram)  
• Paxil (paroxetine)  
• Prozac (fluoxetine)  
• Zoloft (sertraline) |
Serotonin and norepinephrine reuptake inhibitors (SNRIs) | Relieve depression and work synergistically with analgesics | Cymbalta (duloxetine) • Effexor (venlafaxine) • Remeron (mirtazapine)

**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 due to fibromyalgia, postherpetic neuralgia, diabetic neuropathy, and pain caused from spinal cord injury. Neurontin and 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, local anesthetics, N-methyl-aspartrate receptor agonists (NMDAs), and topical agents.

**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, self hypnosis, and movement exercises such as tai chi and yoga.

**RESPONSIBLE OPIOID PRESCRIBING**

Responsible opioid prescribing focuses on 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.

The Brief Pain Inventory (BPI) is an excellent tool for assessment of chronic pain patients. It is a self-report survey that takes less than five minutes to complete and assesses pain intensity as well as emotion and functionality (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. Patients may be at risk because of medical conditions that can increase their risk for adverse events such as respiratory depression. Patients may also present with physiologic, behavioral, and genetic risk factors that may predispose them to abuse of opioid medication.

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. Elderly and obese patients are higher risk. Patients with impaired renal or hepatic function, cardiopulmonary disease, mental health conditions, and sleep apnea are also at higher risk for adverse consequences when prescribed opioid medication. Additional caution is suggested with these patients.

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 when opioids are used for chronic pain management. 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. (See also “Patient Risk Factors” above.)

Screening tools that identify potential risk are important in the assessment of all patients who are prescribed opioid medication. Two screening tools that have demonstrated predictive validity are the:

- **Opioid Risk Tool (ORT).** This tool was developed by Webster & Webster in 2005. It is designed to screen for risk in patients who may be prescribed opioid medication. It is a 5-item self-report survey that takes less than one minute to complete. The opioid risk tool is an excellent tool for quickly discriminating between high-risk and low-risk patients. (See “Resources” at the end of this course.)

- **Screener and Opioid Assessment for Patients in Pain (SOAPP).** This tool was developed to help clinicians determine how much monitoring a patient on long-term
opioid medication might require. The survey is a 24-item self-report. (See “Resources” at the end of this course.)

These screening tools can be used as part of the initial assessment, along with the history and physical examination, to help guide the treatment plan for patients taking opioids for chronic pain. Patients who score at higher risk may need additional monitoring.

**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 about safe use, storage, and disposal of controlled substances.

**Periodic Monitoring**

When patients are receiving opioid medication for chronic pain, it is important to periodically reevaluate the appropriateness of continuing opioid therapy. 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.

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. It offers a simple checklist approach for monitoring the “Four As” of chronic pain care (see below).

**THE FOUR As OF CHRONIC PAIN**

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. One method of capturing the parameters involved in chronic pain management is the use of the “Four As” of chronic pain management:

- Analgesia
- Activities of daily living
- Adverse effects
- ADRBs (aberrant drug-related behaviors)


To corroborate self-reports, periodic monitoring should include urine tests and pill counts when appropriate and reports from the prescription drug monitoring program.

- **Pain Assessment and Documentation Tool (PADT).** A screening tool that offers a simple checklist approach for evaluating the Four As. It can be used at each patient visit and may be incorporated into electronic records to periodically monitor outcomes of pain management. (See “Resources” at the end of this course.)

- **Current Opioid Misuse Measure (COMM).** A self-report tool designed to identify chronic pain patients on opioid medication who are displaying ADRB.

- **Prescription Drug Monitoring Program (PDMP).** In addition to self-report surveys, a program to regularly confirm that ADRBs (such as "doctor shopping") are not occurring.

**UNIVERSAL PRECAUTIONS FOR PRESCRIBING OPIOID MEDICATION**

A universal precautions approach when prescribing opioid medication for chronic pain recognizes that all patients who are prescribed opioid medication are at risk for addiction. The implementation of universal precautions came from the experience gained from infectious diseases, where it was recognized that the safest and most appropriate approach to help reduce the risk of transmitting potentially life-threatening infectious diseases was to apply a minimum level of precaution with all patients. In time, this became a standard of care for infectious disease.

Since opioid medications have the potential to lead to drug abuse, diversion, and addiction, it likewise makes sense to proceed with caution when prescribing these medications. An assessment of patient lifestyle, past history, and a tendency toward risky behavior can provide clues about a patient’s risk for addiction but cannot accurately predict the likelihood of a patient abusing or diverting these medications. Thus, using a universal precautions approach when
prescribing opioid medications offers a similar level of precaution with all patients and can help balance the risks with the benefits of prescribing opioids.

A universal precautions approach when prescribing opioid medication for chronic pain is a cornerstone for responsible opioid prescribing and can be summarized in the following 10 steps:

1. Make a diagnosis with an appropriate differential.
2. Conduct a patient assessment, including risk for substance use disorders.
3. Discuss the proposed treatment with the patient and obtain informed consent.
4. Have a written treatment agreement that sets forth the expectations and obligations of both the patient and the treating physician.
5. Initiate an appropriate trial of opioid therapy, with or without adjunctive medication.
6. Perform regular assessments of pain and function.
7. Reassess the patient’s pain score and level of function.
8. Regularly evaluate outcomes of pain management.
9. Periodically review the pain diagnosis and any comorbid conditions, including substance use disorders, and adjust the treatment regimen accordingly.
10. Keep careful and complete records of the initial evaluation and each follow-up visit.

Source: Gourley & Almahrezi, 2005.

Patient Education about Safe Use, Storage, and Disposal of Controlled Substances

Education about safe use, storage, and disposal of controlled prescription drugs should be part of the conversation between patients and clinicians whenever controlled substances are prescribed. Education may be provided through verbal instruction during the patient-provider interaction. Education may also be provided by giving the patient educational handouts that can be reviewed at home.

SAFE USE

Patient education regarding safe use includes these points:

• Never take an opioid pain medication that is not prescribed to you.
• Never share your medication with others.
• Never adjust your own doses.
• Never use medication after the expiration date.
- Never mix medication with alcohol or other sedatives.
- Never break, chew, or crush medication.
- Always tell your healthcare provider about all medications you are taking.
- Keep track of when you take all medications.

SAFE STORAGE

Patient education regarding safe storage includes these points:

- Store medication in a locked cabinet or other secure storage space.
- Keep storage areas cool, dry, and out of direct sunlight.
- Do not store medication in your car.
- Keep medication stored in original containers.
- Do not store medications in the refrigerator or freezer unless specifically instructed to do so.

SAFE DISPOSAL

Patient education regarding safe disposal includes these points:

- Ask your pharmacist about specific disposal instructions for your medication.
- As an alternative, dispose of medication by mixing it with an undesirable substance such as coffee grounds or cat litter, putting the mixture into a sealed disposable container, and placing it in the trash.
- Ask your pharmacist about “take-back” programs in the community.

Evidence-Based Guidelines

The value of a universal precautions approach in pain care has led many states to implement guidelines for the use of controlled substances in the treatment of chronic pain. These guidelines can help clinicians make better decisions about managing pain and promote safer and more consistent prescribing practices that will improve patient outcomes.

Improving the way opioids are prescribed through clinical practice guidelines can ensure patients have access to safe, effective treatment while reducing the number of people who misuse, abuse, or overdose from these powerful drugs (CDC, 2013).

The CDC’s National Center for Injury Prevention and Control, along with the National Institute on Drug Abuse (NIDA), the Substance Abuse and Mental Health Services Administration (SAMHSA), and the Office of the National Coordinator for Health Information Technology (ONC), reviewed eight guidelines to identify common recommendations.
Common recommendation elements found in all the guidelines include:

- Conducting a physical exam, pain history, past medical history, and family/social history
- Conducting urine drug testing, when appropriate
- Considering all treatment options, weighing benefits and risks of opioid therapy, and using opioids when alternative treatments are ineffective
- Starting patients on the lowest effective dose
- Implementing pain treatment agreements
- Monitoring pain and treatment progress with documentation; using greater vigilance at high doses
- Using safe and effective methods for discontinuing opioids (e.g., tapering, making appropriate referrals to medication-assisted treatment, substance use specialists, or other services)
- Using data from prescription drug monitoring programs to identify past and present opioid prescriptions at initial assessment and during the monitoring phase (CDC, 2013)
DOs AND DON'Ts FOR PAIN MANAGEMENT
The Physicians for Responsible Opioid Prescribing make the following recommendations:

**Acute Pain Management**
- **DO** explain that opioids are for time-limited use.
- **DON'T** stock your patients’ medicine cabinets with unused opioids.
- **DON'T** start long-term use of opioids by accident.
- **DON'T** prescribe extended-release opioids for acute pain or to opioid-naive patients.

**Chronic Pain Management**
- **DON'T** initiate chronic opioid therapy (COT) before considering safer alternatives.
- **DO** screen patients for depression and other psychiatric disorders before initiating COT.
- **DO** talk with patients about therapeutic goals, opioid risks, realistic benefits, and prescribing ground rules.
- **DO** realize that patients are reluctant to disclose a history of substance abuse.
- **DO** perform a thorough medical evaluation and a urine drug screen before initiating COT.
- **DO** explain to patients that discontinuing opioids may be difficult.
- **DO** perform random urine drug screens on patients receiving COT.
- **DON'T** continue COT with patients who show no progress toward treatment goals.
- **DON'T** assume patients know how to use opioids safely.
- **DON'T** assume patients use opioids as you intend.
- **DON'T** start a treatment that you are not prepared to stop.
- **DON'T** assume patients are doing well with COT without careful evaluation.
- **DON'T** abandon patients with a prescription drug problem.

CASE

Joe Smith, a 48-year-old chemical plant worker was involved in a motor vehicle accident several months ago. He sustained an injury to his femur that required surgery as well as a fracture of his L2-L3 vertebrae. Mr. Smith had his last follow-up visit with the orthopedic surgeon approximately three weeks ago and has come to the Family Care Clinic complaining of ongoing back pain. He has requested another prescription for Lortab 10 mg.

Leslie Stone, the nurse practitioner, interviewed Mr. Smith, who informed her that he recently returned to work but has missed a few days because of back pain. He reported that he has also not been participating in church activities as much as he did before the accident and has not been able to get back into his regular exercise routine of walking one mile with his wife three times per week.

Ms. Stone completed a thorough history and physical examination that revealed:

- Past medical history: hypertension, COPD, depression
- Past surgical history: Open reduction, internal fixation right femur, 3 months ago
- Spine X-rays and MRI scan: L2-L3 vertebrae fracture that appeared stable; no surgical intervention was recommended
- Lortab 10 mg, three times daily, was prescribed for 30 days following surgery; patient continued to report back and right-leg pain at follow-up visits, so Lortab was continued but decreased to twice daily; Ambien was prescribed as needed to help with sleep
- Physical therapy was ordered for 8 weeks following surgery; the patient demonstrated fair progress in therapy

As part of the initial assessment, Mr. Smith was asked to complete a Brief Pain Inventory (BPI) as well as the Opioid Risk Tool (ORT) in order to help his nurse practitioner better evaluate his pain and risk for addiction. While this information was being collected, Ms. Stone accessed the Prescription Drug Monitoring Program to determine if the patient had been receiving opioid medication from any other sources than his orthopedic surgeon and determined that he had not.

After educating Mr. Smith about the risks associated with long-term opioid use, Ms. Stone obtained informed consent from the patient. She then developed a treatment plan to help him improve functional activities and quality of life. The following patient-centered goals were part of the treatment plan:

1. Reduced back pain
2. No absences from work because of back pain
3. Walking with spouse at least one time per week
4. Return to active participation in church activities
The treatment plan also included:

1. Hydrocodone (Lortab) 5/375, three times daily
2. Prozac 20 mg, twice daily
3. Physical therapy for 4 weeks for back-strengthening exercises

Mr. Smith agreed to and signed a treatment agreement that clearly defined the responsibilities of the patient and the clinician. He was informed that random pill counts are part of the clinic policy for all patients receiving opioid medications and that he would need to bring his pill bottle with the remaining medication to all subsequent appointments. Mr. Smith agreed and was scheduled to return for a follow-up appointment in 30 days.

Mr. Smith returned to the Family Care Clinic for his scheduled 30-day follow-up visit. He brought his pain medication bottle to the appointment according to his treatment agreement. Ms. Stone noted that there were three pills left in the bottle, demonstrating that the patient was in compliance with the scheduled doses of pain medication.

As part of the follow-up assessment, Ms. Stone evaluated the “Four As” of pain care using the PADT tool. Mr. Smith reported effective analgesia with the reduced dose of hydrocodone combined with acetaminophen. He reported no lost work time, that he is walking regularly with his wife, and that he again participates in church activities, which has made him feel better. The patient reported no adverse effects from the medication, and no aberrant drug-related behaviors were apparent.

Based on this follow-up evaluation, improvement in the patient’s pain and functional goals were evident and documented in the patient’s electronic health record.

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 (PDMPs) can help identify high-risk users and high-risk prescribers, reduce “doctor shopping” and “pharmacy shopping,” and improve accountability.

• **Proper medication disposal** can help 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 can also help diminish widespread access and thus reduce the availability of excess drugs.

Prevention efforts have continued to be a top priority for health officials, regulatory boards, lawmakers, and public policy officials (ASAM, 2012). A comprehensive and integrated approach that expands and strengthens evidence-based programs and policies is necessary to improve outcomes.

**Educational Initiatives**

Nurses and other healthcare professionals must be educated about chronic pain and addiction, be familiar with legal and regulatory oversight, and be aware of programs and policies that will impact clinical practice. Clinicians must have tools readily available that can help them easily identify high-risk patients and follow evidence-based guidelines for safe prescribing. As pain management guidelines evolve, it is important that they be synthesized and incorporated into existing and developing clinical practice tools to help improve clinical decision-making.

**RISK EVALUATION AND MITIGATION STRATEGY (REMS)**

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

The REMS requires companies who develop ER/LA opioids to provide training for health professionals and the public. Companies must develop the training in compliance with the objectives established by the FDA and make prescribers aware of the REMS education through widespread distribution of prescriber letters and patient counseling documents. A medication guide must also be provided with all ER/LA opioid analgesic prescriptions (FDA, 2014).

Prescribers of ER/LA opioid analgesics are strongly encouraged to:

• Complete a REMS-compliant education program

• Counsel patients on the safe use, serious risks, storage, and disposal of ER/LA opioid analgesics every time the medication is prescribed
• Stress the importance of reading the medication guide that accompanies a medication
• Consider using patient-prescriber agreements (PPA) and risk assessment instruments to improve patient and prescriber accountability
  (FDA, 2014)

GUIDELINES FOR BEST PRACTICES

Many states are implementing evidence-based guidelines for use of controlled substances in the management of pain. These guidelines support safer and more consistent controlled substance prescribing and help prevent prescription drug abuse and diversion. It is important that clinicians be educated regarding state guidelines since they affect clinical practice for those who prescribe controlled substances or provide pain treatment. (See “Evidence-Based Guidelines” earlier in this course.)

CLINICAL DECISION-SUPPORT RESOURCES

National Institute on Drug Abuse: Medical & Health Professional Resources (NIDAMED) 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. (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 has 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.

SBIRT is being integrated into healthcare systems throughout the nation. Screening for problematic substance use provides an opportunity for education and can be used as a health promotion strategy to encourage groups and individuals to be more aware of the risks associated with their own substance use (Humeniuk et al., 2008).

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 January 2014, 49 states had passed legislation authorizing creation of a PDMP, and 46 states had programs in operation (NASCSA, 2014). PDMPs result in safer prescribing by identifying patients who are "doctor shopping" or using controlled substances in excess.
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

The United States Government and individual states recognize the importance of proper medication disposal and the value of providing opportunities for people to dispose of unwanted or unused medications. The National Prescription Drug Take-Back Day aims to provide a safe, convenient, and responsible means of disposing of prescription drugs, while also educating the general public about the potential for abuse of medications. (See “Resources” at the end of this course.)

Legal and Regulatory Oversight

Federal and state regulatory actions aim to assure safer opioid prescribing and improve patient and provider accountability. Identifying high-risk patients and high-risk providers is a priority (HHS, 2013).

All controlled substances have some level of abuse potential and are regulated by the U.S. Controlled Substance Act (CSA). They are classified into categories based on their medical use and their abuse potential. The Food and Drug Administration (FDA) supports revisions for drug labeling, stricter drug classifications, and the development of abuse deterrent formulas. The FDA also requires a 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 (HHS, 2013) (see “Resources” at the end of this course).
On March 6, 2015, CDC released the funding opportunity *Prescription Drug Overdose Prevention for States*. This major funding opportunity will provide state health departments with resources and support to advance comprehensive state-level interventions for preventing prescription drug overuse, misuse, abuse, and overdose (CDC, 2015).

**CONCLUSION**

Currently we are facing an epidemic of prescription drug abuse, diversion, and overdose deaths across the country. This nationwide problem has escalated along with the growing epidemic of chronic pain. A cultural shift toward balancing the risks and benefits of prescription opioids for chronic pain is necessary.

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**

- **Brief Pain Inventory**

- **Current Opioid Misuse Measure**

- **ER/LA REMS content and handouts (American Society of Addiction Medicine)**
  http://www.asam.org/education/rems-courses/er-la-rems-content-handouts

- **Expanded skills in chronic opioid therapy (Clinical Tools)**
  http://www.opioidrisk.com/aboutexpanded

- **National Take-Back Initiative**
  http://www.deadiversion.usdoj.gov/drug_disposal/takeback/

- **NIDAMED: Medical and Health Professionals**
  http://www.drugabuse.gov/nidamed-medical-health-professionals

- **Opioid Risk Tool**

- **Pain Assessment and Documentation Tool**

- **Screener and Opioid Assessment for Patients in Pain**
  https://www.painedu.org/soapp.asp
REFERENCES


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TEST

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1. Which statement best reflects 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 drug abuse is the fastest-growing drug problem.
   d. Prescription drug abuse is the leading cause of accidental death.

2. Mary, who is a post-graduate nursing school student, is writing a research paper on prescription drug abuse in America. Mary examines data collected by the National Survey on Drug Use and Health (NSDUH) and the Drug Abuse Warning Network (DAWN) to identify:
   a. Patients who may be diverting controlled substances.
   b. Prescribers of high-risk controlled substances.
   d. Prescription drug abusing patients and providers.

3. Which factor contributes most to our nation’s current health problem of people abusing prescription drugs?
   a. The lack of knowledge about addiction among patients who receive opioid medication for chronic pain
   b. The nation’s epidemic of chronic pain
   c. The widespread availability of controlled substances to the general population
   d. The online pharmacies that provide easy access to controlled substances

4. Which patient is most at risk for abusing opioid medication?
   a. James, who is a 42-year-old man without a personal or family history of substance abuse but who has many friends who drink alcohol and smoke marijuana
   b. Jenny, who is a 23-year-old woman with a past history of sexual abuse
   c. Michael, who is 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. Sarah, who is a 38-year-old home health nurse struggling with anxiety and depression, but has no personal or family history of substance abuse
5. John, who is 42-years-old, has been taking oxycodone to help alleviate chronic shoulder pain sustained in a motorcycle accident last year. Which behavior by John **most** concerns his primary care provider about aberrant drug-related behavior (ADRB)?
   a. John is somewhat demanding in his request for additional pain medication at a follow-up visit.
   b. John’s wife reports that he has gone to a number of providers to get more pain medication.
   c. John specifically asks for Lortab, 10 mg, orally for pain relief.
   d. John’s wife reports there being plenty of extra medication at home that John has saved from previous prescriptions.

6. Beth, a nurse at the pain clinic, is conducting risk assessments on all patients who are taking opioid medication for pain management. Which screening tool does Beth choose to identify whether the patients are in danger of not taking their medication as directed?
   a. The Opioid Risk Tool
   b. The Current Opioid Misuse Measure
   c. The Alcohol, Smoking, and Substance Involvement Screening Test
   d. The Screener and Opioid Assessment for Patients in Pain

7. Which class of prescription drugs is most commonly associated with abuse, diversion, and overdose deaths?
   a. Sedatives
   b. Opioids
   c. Stimulants
   d. Muscle Relaxants

8. Julie, who has been a registered nurse for more than 20 years, is perplexed over the number of people who are accessing controlled substances. By taking an online course, she learns that most of these substances are diverted from:
   a. Manufacturers and then sold on the streets.
   b. Internet pharmacies.
   c. Friends and family with prescriptions for the controlled medications.
   d. Abroad and smuggled into the United States to be sold illegally.

9. Acute pain is defined as:
   a. A normal mechanism that warns the person of possible injury or illness.
   b. An inflammatory process that will eventually lead to chronic pain.
   c. A condition that does not respond well to opioid analgesics.
   d. An abnormal response to an injury or illness.
10. A treatment goal not within the realm of chronic pain management is:
   a. Improving quality of life.
   b. Implementing a variety of pharmacologic interventions.
   c. Increasing functional ability.
   d. Reducing pain.

11. The Opioid Risk Tool (ORT) and Screener and Opioid Assessment for Patients in Pain (SOAPP) tool both assess a patient’s risk for:
   a. Potential abuse of opioid medication.
   b. Overdose from opioid medication.
   c. Adverse drug reactions from opioid medication.
   d. Secondary health conditions associated with taking opioid medication.

12. When assessing a patient who has been prescribed an opioid medication for chronic pain management, the nurse considers the “Four As” by asking questions about the patient’s:
   a. Family history of chronic pain.
   b. Daily activity level.
   c. Satisfaction with the prescribing provider.
   d. Ability to refill his or her prescription.

13. Which is not a prevention action outlined by the White House’s Office of National Drug Control Policy?
   a. Requiring proper disposal of excess controlled substances
   b. Requiring all prescribers to register with the Drug Enforcement Agency (DEA)
   c. Monitoring patterns of prescription drug use through surveillance systems
   d. Educating patients and healthcare providers about the risks associated with controlled substances

14. The Food and Drug Administration’s Risk Evaluation and Mitigation Strategy (REMS) for extended-release (ER) and long-acting (LA) opioid medications mandates:
   a. Periodic drug screens for all patients who take ER/LA opioids.
   b. Additional opioid risk training for hospital-based nurses and physicians.
   c. Training and education for the public and healthcare providers by ER/LA opioid manufacturers.
   d. Annual continuing education for all healthcare providers who prescribe, dispense, or administer controlled substances.