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Contact Hours: **3**

Prescription Drug and Controlled Substance 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 misuse and diversion. Specific learning objectives to address potential knowledge gaps include:

- Identify components of responsible opioid prescribing practices and reasonable standards of care.
- Discuss the CDC guidelines for safe prescribing of opioids.
- Explain strategies designed to prevent prescription drug misuse and diversion.
- Describe considerations for the use of the opioid antagonist naloxone.
- Recognize chemical dependency and impairment in the workplace.
- Discuss nonpharmacologic interventions for pain.

SCOPE OF THE PROBLEM

Millions of Americans suffer from pain and are often prescribed opioids to treat their conditions. However, the dangers of prescription misuse, opioid use disorder, and overdose have been a growing problem throughout the United States.

Since the 1990s, when the amount of opioids prescribed to patients began to grow, the number of overdoses and deaths from prescription opioids has also increased. Even as the amount of opioids prescribed and sold for pain has increased, the amount of pain that Americans report has not similarly changed (CDC, 2022).

From 1999 to 2020, more than 263,000 people died in the United States from overdoses involving prescription opioids. Overdose deaths involving prescription opioids increased by nearly five times from 1999 to 2020. In 2020, an average of 44 people died each day from overdoses involving prescription opioids, totaling more than 16,000 deaths (CDC, 2021a). Prescription opioids were involved in nearly 24% of all opioid overdose deaths in 2020, a 16% increase in prescription opioid-involved deaths from 2019 to 2020. (In order to account for increases in illicitly manufactured fentanyl, CDC Injury Center separates synthetic opioids, other than methadone, from prescription opioid death calculations.)

One of the biggest challenges in healthcare practice is providing safe and appropriate pain care without contributing to this epidemic of prescription drug misuse, drug diversion, and drug overdose deaths. Nurses in particular are in a unique position to address this problem since they 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.

FENTANYL AND OVERDOSE DEATHS

Drug overdose deaths accelerated during the COVID-19 pandemic, outpacing overdose death rates from any previous year. Illicitly manufactured fentanyl, which is increasingly found in counterfeit prescription medications, was the main driver of the near 30% increase in overdose deaths from 2020 to 2021 (CDC, 2021d).

(See also “Counterfeit Pills” later in this course.)

DEFINITION OF TERMS

Addiction: A treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual’s life experiences

Chronic pain: Pain that persists for weeks, months, or years

CNS depressants: Drugs that include sedatives, tranquilizers, and hypnotics that slow brain activity

Controlled substance: A drug or other substance that is strictly regulated under the federal Controlled Substances Act and/or other state laws and categorized based on its potential for abuse, accepted medical use, and safety or dependence liability

Dependence: A state in which the body adapts to a drug, requiring more of it to achieve a certain effect (tolerance) and eliciting drug-specific physical or mental symptoms if drug use is abruptly ceased (withdrawal)



Illicit drug use: Nonmedical use of a variety of drugs that are prohibited by law (can be illegally obtained drugs or misuse of prescription drugs)

Opioids: Drugs that act on opioid receptors in the spinal cord and brain to reduce the intensity of pain-signal perception intensity

Pain: An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage

Prescription drug misuse (or nonmedical use of prescription drugs): Taking a medication in a manner or dose other than prescribed, taking someone else's prescription, or taking a medication to feel euphoria

Prescription drug diversion: Prescription medicines that are obtained or used illegally

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

Stimulants: Drugs that speed up the body's system

Substance abuse: A term that is no longer used in the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)*; see instead *substance use disorder* below

Substance use disorder (SUD): A complex condition in which there is uncontrolled use of a substance despite harmful consequence; occurs when the recurrent use of alcohol and/or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home

(ASAM, 2021; NINDS, 2021; NIDA, 2020; CDC, 2021b, 2019; Nicholas et al., 2019; SAMHSA, 2021a; U.S. DEA, 2020b; APA, 2021)

RESPONSIBLE OPIOID PRESCRIBING AND STANDARDS OF CARE

Responsible prescribing involves individual prescribers following best practices and adhering to reasonable standards of care to balance the risks and benefits of opioid pain management for each patient. Three important components to responsible prescribing include:

- Thorough patient assessment
- Treatment plan design
- Periodic monitoring



The Centers for Disease Control and Prevention (CDC) Clinical Practice Guideline for Prescribing Opioids for Pain provides recommendations for prescribing opioid pain medications (see below).

Patient Assessment

A thorough patient assessment is critical prior to prescribing opioid medication for chronic pain. It is important to properly diagnose the condition to determine if opioid medication is an appropriate treatment. A well-documented patient history that includes past medical history, medication history, social history, family history, and psychosocial history is critical. Assessing and documenting a personal or family history of substance misuse is also important.

ASSESSING PAIN

Proper diagnosis of the painful condition helps 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, recognizing that perceptions of pain are influenced by culture, environment, emotional state, sleep patterns, and habits.

Any provider must conduct a pain assessment before they can determine what type of pain management is needed. Assessment of pain should include:

- Context (How did the pain begin?)
- Location (Where is the pain felt?)
- Severity (How does the pain rate on a 0–10 scale?)
- Quality (Is the pain sharp, stabbing, dull, pulsating, etc.?)
- Timing (How often does the pain occur?)
- Duration (How long has the pain been persisting?)
- Modifying factors (What makes the pain better or worse?)
- Chronic illness status (What conditions might impact or worsen the pain?)
- Associated signs and symptoms (What else occurs with the pain?)

ASSESSING RISK

When clinicians assess patients with chronic pain, it is important to recognize two categories of risk due to opioid therapy: medical conditions that increase their risk for adverse events (e.g., respiratory depression) and risk of misuse, abuse, or addiction.



Risk of Adverse Events

Risk due to medical conditions are 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 medications.

REMS

A Risk Evaluation and Mitigation Strategy (REMS) is a drug safety program that may be required by the U.S. Food and Drug Administration (FDA) to help ensure that benefits outweigh risks of certain drugs with significant safety concerns. REMS are designed to help reduce the occurrence and/or severity of certain serious risks by informing and/or supporting the execution of the safe use conditions described in the medication's FDA-approved prescribing information. REMS have been approved for dozens of opioid analgesic medications.

(U.S. FDA, 2019)

Risk for Misuse, Abuse, and Addiction

Variables that have been associated with a higher risk for misuse, abuse, and addiction 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 "Recognizing Aberrant Drug-Related Behaviors" later in this course.)

The use of **screening tools** is recommended, and multiple tools are available that can help healthcare providers to assess these risks. The specific tool to be used is determined based on:

- The type of substance of risk (or whether the patient is at a generalized risk to misuse numerous substances)
- The age of the patient (as certain tools are specific to children or adolescents)
- Whether it is preferred to have the patient self-administer the screening or to have a healthcare professional do so

Examples of screening tools include:

- **Opioid Risk Tool:** Administered at initial visit prior to beginning opioid therapy; questions address age, family, and personal history of substance abuse, history of preadolescent sexual abuse, and psychological diseases
- **Screening to Brief Intervention (S2BI):** A series of questions regarding frequency-of-use in adolescent patients of substances most commonly used



- **Tobacco, Alcohol, Prescription medication, and other Substance use (TAPS):** A combined screening and brief assessment that addresses use-related behaviors and generates a risk level for each substance class

(See also “Resources” at the end of this course.)

Treatment Plan

Responsible opioid prescribing requires clinicians to develop treatment plans that focus on patient-centered outcomes that improve quality of life. A function-based treatment strategy that aims to maximize the patient’s quality of life and minimize the burden of their pain includes a mutual understanding between prescriber and patient covering the following principles:

- Complete elimination of all pain is often not possible.
- The goal of treatment is to successfully manage pain and not exclusively to reduce a pain scale score.
- Functional goals will be collaboratively set, with the aim of improving quality of life; these goals must be realistic, achievable, verifiable, and meaningful.
- Risks, benefits, side effects, and potential adverse consequences of opioid use will be fully disclosed.
- Education about safe use, storage, and disposal of opioid medication will be provided.

This treatment plan must be documented, together with informed consent and patient education.

SAMPLE PATIENT AGREEMENT FORM FOR LONG-TERM CONTROLLED SUBSTANCE PRESCRIPTIONS

Patient Name: _____

Medication(s): _____

The use of this medication(s) may cause addiction and is only one part of the treatment for (insert name of condition): _____

The goals of this medicine are:

- To improve my ability to work and function at home
- To help my condition (e.g., pain, anxiety, etc.) as much as possible without causing dangerous side effects

I have been told that:

- If I drink alcohol or use street drugs, I may not be able to think clearly and I could become sleepy and risk personal injury.



- I may get addicted to this medicine.
- If I or anyone in my family has a history of drug or alcohol problems, there is a higher chance of addiction.
- If I need to stop this medicine, I must do it slowly or I may get very sick.

I agree to the following:

- I am responsible for my medicines. I will not share, sell, or trade my medicine. I will not take anyone else's medicine.
- I will not increase my medicine until I speak with my doctor or nurse.
- My medicine may not be replaced if it is lost, stolen, or used up sooner than prescribed.
- I will keep all appointments set up by my primary care provider (e.g., primary care, physical therapy, mental health, substance abuse treatment, pain management)
- I will bring the pill bottles with any remaining pills of this medicine to each clinic visit.
- I agree to give a blood or urine sample, if asked, to test for drug use.

Refills:

- Refills will be made only during regular office hours. No refills on nights, holidays, or weekends.
- I must call at least three (3) working days ahead to ask for a refill of my medicine. No exceptions will be made.
- I must keep track of my medications. No early or emergency refills may be made.

Pharmacy:

- I will only use one pharmacy to get my medicine.
- The name of my pharmacy is: _____
- My primary care provider may talk with the pharmacist about my medicines.

Prescriptions from other doctors: If I see another healthcare provider who prescribes a controlled substance for me (e.g., dentist, emergency room doctor, provider at another hospital, etc.), I must bring this medicine to my primary care provider in the original bottle, even if there are no pills left.

Privacy: While I am taking this medicine, my primary care provider may need to contact other healthcare providers or family members to get information about my care and/or use of this medicine. I will be asked to sign a release at that time.



Termination of Agreement: If I break any of the rules or if my primary care provider decides that this medicine is hurting me more than helping me, this medicine may be stopped by my primary care provider in a safe way.

Patient signature: _____

Date: _____

(NIDA, n.d.)

Periodic Monitoring

It is critical to regularly reevaluate the appropriateness of continuing opioid therapy due to changes in pain etiology, health condition, progress toward functional goals, and addiction risk. To corroborate self-reports, review of data within the prescription drug monitoring program should be conducted at each visit (see “Prescription Drug Monitoring Programs” later in this course). Periodic monitoring should also include urine tests and pill counts when appropriate.

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 to monitor 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 |
| (Bazzo et al., 2019) | |

Periodic monitoring timing will vary with each patient. The CDC (n.d.-a) recommends checking monitoring every three months at the minimum, and before refilling an opioid prescription at any time. State requirements may vary.

CDC Clinical Practice Guideline for Prescribing Opioids for Pain

In 2022, the CDC updated its guidelines for prescribing opioids for the treatment of pain. Whereas the 2016 guideline focused on recommendations for primary care physicians, the newer guideline expands the scope to additional clinicians whose scope of practice includes prescribing opioids (e.g., physicians, nurse practitioners and other advanced-practice registered nurses, physician assistants, and oral health practitioners). The 2022 guidelines address four main issues, including:



- Making a determination about whether or not to initiate opioids for pain
- Selecting the appropriate opioid and determining the dosage
- Deciding the duration of the initial opioid prescription and conducting follow-up
- Assessing the risk and addressing the potential harms of opioid use with the patient

The recommendations in the 2022 guidelines aim to improve communication between clinicians and patients about the risks and effectiveness of pain treatment; improve pain, function, and quality of life for persons with pain; and reduce the risks associated with opioid pain treatment (including opioid use disorder, overdose, and death) as well as with other pain treatment.

The practice guidelines include 12 recommendations for clinicians who are prescribing opioids for outpatients ages 18 years and older with pain that is acute (duration of <1 month), subacute (duration of 1–3 months), or chronic (duration of >3 months), excluding pain management related to sickle cell disease, cancer-related pain treatment, palliative care, and end-of-life care.

1. Nonopioid therapies are at least as effective as opioids for many common types of pain. Maximize the use of nonpharmacologic and nonopioid pharmacologic therapies appropriate for the condition and the patient, and only consider opioid therapy for acute pain if benefits are expected to outweigh risks to the patient. Discuss benefits and risks with the patient prior to prescribing opioid therapy.
2. Nonopioid therapies are preferred for subacute and chronic pain. Maximize use of nonpharmacologic and nonopioid pharmacologic therapies as appropriate for the specific condition and patient. Consider opioid therapy if expected benefits are anticipated to outweigh risks, and work with the patient to establish treatment goals for pain and function. Consider how opioid therapy will be discontinued if benefits do not outweigh risks.
3. When starting opioid therapy for acute, subacute, or chronic pain, prescribe immediate-release opioids instead of extended-release and long-acting (ER/LA) opioids.
4. When opioids are initiated for opioid-naïve patients with acute, subacute, or chronic pain, prescribe the lowest effective dosage. If opioids are continued for subacute or chronic pain, prescribe the lowest effective dosage. Avoid increasing dosage above levels likely to yield diminishing returns in benefits relative to risks.
5. For those patients already receiving opioid therapy, carefully weigh benefits and risks and exercise care when changing opioid dosages. Work closely with patients to optimize nonopioid therapies while continuing opioid therapy. If benefits do not outweigh risk of continued opioid therapy, optimize other therapies and work closely with patients to gradually taper to lower dosages, or appropriately taper and discontinue opioids. Unless there are indications of a life-threatening issue such as warning signs of impending overdose (e.g., confusion, sedation, slurred speech), opioid therapy should not be discontinued abruptly, and clinicians should not rapidly reduce opioid dosages from higher dosages.
6. When opioids are needed for acute pain, prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids.



7. Evaluate benefits and risks with patients within 1–4 weeks of starting opioid therapy for subacute or chronic pain or of dosage escalation. Regularly re-evaluate benefits and risks of continued opioid therapy with patients.
8. Before starting and periodically during continuation of opioid therapy, evaluate risks for opioid-related harms and discuss risks with patients. Work with patients to incorporate into the management plan strategies to mitigate risk, including offering naloxone.
9. When prescribing initial opioid therapy for acute, subacute, or chronic pain, and periodically during opioid therapy for chronic pain, review the patient’s history of controlled substance prescriptions using state prescription drug monitoring program data to determine whether the patient is receiving opioid dosages or combinations that put the patient at high risk for overdose.
10. When prescribing opioids for subacute or chronic pain, consider the benefits and risks of toxicology testing to assess for prescribed medications as well as other prescribed and nonprescribed controlled substances.
11. Use particular caution when prescribing opioid pain medication and benzodiazepines concurrently and consider whether benefits outweigh risks of concurrent prescribing of opioids and other central nervous system depressants.
12. Offer or arrange treatment with evidence-based medications for patients with opioid use disorder. Detoxification on its own, without medications for opioid use disorder, is not recommended because of increased risks for resuming drug use, overdose, and overdose death.

(Dowell et al., 2022)

HOW TO CALCULATE MORPHINE MILLIGRAM EQUIVALENTS PER DAY (MME/DAY)

1. Calculate the total daily amount of opioid the patient is prescribed.
2. Convert each opioid to MMEs by multiplying the daily dosage for each opioid by its specific conversion factor (see table).
3. Add all opioid MMEs together to obtain the patient’s MME.

| OPIOID CONVERSION FACTORS | |
|--|--------------------|
| Opioid (doses in mg/day except where noted) | Conversion Factor* |
| Codeine | 0.15 |
| Fentanyl transdermal (mcg/hr) | 2.4 |
| Hydrocodone | 1 |
| Hydromorphone | 4 |



| | |
|---|-----|
| Methadone: | |
| 1–20 mg/day | 4 |
| 21–40 mg/day | 8 |
| 41–60 mg/day | 10 |
| ≥61–80 mg/day | 12 |
| Morphine | 1 |
| Oxycodone | 1.5 |
| Oxymorphone | 3 |
| * Dose conversions are estimated and cannot account for all individual differences in genetics and pharmacokinetics. (CDC, n.d.-b) | |

Example:

A patient with chronic back pain for more than 3 years is currently taking oxycodone 30 mg twice daily (BID). Calculate the MME.

1. Calculate the total daily amount the patient is prescribed.

$$30 \text{ mg} \times 2 \text{ times daily (BID)} = 60 \text{ mg/day}$$

2. Multiply the total daily amount by the conversion factor for oxycodone.

$$60 \text{ mg/day} \times 1.5 = 90 \text{ MME per day}$$

TAPERING OPIOID MEDICATIONS

An opioid-tapering flowchart is available from the U.S. Department of Health and Human Services (DHHS) that is useful in making determinations about ongoing opioid use or cessation. Tapering is recommended when:

- Pain improves
- The patient requests dosage reduction or discontinuation
- Pain and function are not meaningfully improved
- The patient is receiving higher opioid doses without evidence of benefit from the higher dose
- The patient has current evidence of opioid misuse
- The patient experiences side effects that diminish quality of life or impair function
- The patient experiences an overdose or other serious event (e.g., hospitalization, injury) or has warning signs for an impending event such as confusion, sedation, or slurred speech



- The patient is receiving medications (e.g., benzodiazepines) or has medical conditions (e.g., lung disease, sleep apnea, liver disease, kidney disease, fall risk, advanced age) that increase risk for adverse outcomes
- The patient has been treated with opioids for a prolonged period (e.g., years), and current benefit-harm balance is unclear

(U.S. DHHS, 2019)

PREVENTING PRESCRIPTION DRUG MISUSE AND DIVERSION

Various actions by healthcare providers can help prevent prescription drug misuse and diversion. These include:

- Educating patients on safe use, storage, and disposal of medications
- Understanding which drugs are commonly misused and/or diverted
- Recognizing aberrant drug-related behaviors (ADRB) (behaviors that may be associated with misuse of prescription opioids)
- Detecting and responding to drug diversion in the workplace

Institutional measures are also an important part of addressing the opioid epidemic, such as:

- Medication formulation and abuse-deterrent formulations
- Prescription drug monitoring programs (PDMPs)
- Surveillance systems

Teaching Safe Use, Storage, and Disposal of Prescription Medications

Educating patients on safe use, storage, and disposal of medications is an essential part of addressing the opioid and drug diversion epidemic. Nurses and prescribers can address the following points with patients who have been prescribed opioids:

SAFE USE

- Before you are prescribed opioids, tell your healthcare provider about all other medications and supplements you are taking.
- Tell your healthcare provider if you or your family has a history of alcohol or drug addiction. There are other pain treatment options that are equally as effective as (or more effective than) opioids and don't carry the same risks for addiction and overdose.
- Only take opioids prescribed to you and as directed by your healthcare provider.
- Never accept opioids from anyone else.



- Don't share your medications with others, because they may cause harm to someone else.
- Store prescription opioids in a locked container and out of children's reach (see below).
- Safely dispose of any unused medication when you are not longer using the medication (see below).
- If you've been prescribed opioids, talk to your healthcare provider about your risk for overdose.
- Tell your healthcare provider if you experience changes in your mood, balance, sleep, or pain level, and if you find it difficult to stop or decrease opioid use.
- Discuss with your healthcare provider alternative ways to manage your pain.
(VA, 2020)

SAFE STORAGE

Opioids are controlled substances, and their possession and use is regulated by state and federal laws. More than 70% of people who misuse prescription opioids obtain them from family and friends. Therefore, it is important that patients safely store their prescription medications. The CDC also recommends that prescribers discuss risks to household members and other individuals if opioids are intentionally or unintentionally shared with others for whom they are not prescribed, including the possibility that others might experience overdose at the same or at lower dosage than prescribed for the patient.

- Store opioids in their original packaging inside a locked cabinet, a lockbox, or other secure location.
- Do **not** store opioids in obvious places like bathroom cabinets or on kitchen counters where others might find them.
- Note when and how much medication you take in order to keep track of the amount left.
(AAFP, 2021; Dowell et al., 2022; SAMHSA, 2020)

SAFE MEDICATION DISPOSAL

Prescribers and/or pharmacists often provide specific disposal instructions for unused or expired medicines, and patients are educated to follow those instructions. There are a variety of ways to dispose of medications. The U.S. FDA (2020a) outlines three options for drug disposal according to the type of drug: a take-back site, the flush list, or household trash.

Take-Back Programs

The **best way** to dispose of most types of unused or expired medicines (both prescription and over the counter) is to immediately drop off the medicine at a drug take-back site, location, or program. Pharmacies, firehouses, or police departments will often "take back" unused medications, particularly opioids. Some areas have specific dates on which they offer this service; other sites will take back medications at any time.



The U.S. Drug Enforcement Agency (DEA) website provides a locator app where the user can search for drug drop-off points within a 10- to 100-mile radius, and each year the DEA sponsors a National Prescription Take Back day (U.S. DEA, 2021a). In 2020, West Virginia collected 5,865 pounds of materials at 94 collection sites throughout the state.

(See “Resources” at the end of this course to locate a disposal location.)

Flushing Disposal

If a drug take-back option or DEA-authorized collector is not available and a medication is on the FDA flush list (see table below), the FDA recommends safely flushing such approved medications down the toilet. The medicines on the flush list are those sought after for their misuse and abuse potential or those that can result in death from one dose if inappropriately taken. For these reasons, the FDA recommends that patients flush them down the toilet to immediately and permanently remove these risks from their home.

The FDA believes that the risk of harm from accidental exposure to these few select medicines far outweighs any potential risk to the environment that may come from disposal by flushing (Khan et al., 2017).

| FDA’s FLUSH LIST | |
|---|---|
| Drug Name | Examples |
| Drugs That Contain Opioids | |
| Any drug that contains the word <i>buprenorphine</i> | Belbuca, Buavail, Butrans, Suboxone, Subutex, Zubsolv |
| Any drug that contains the word <i>fentanyl</i> | Abstral, Actiq, Duragesic, Fentora, Onsolis |
| Any drug that contains the words <i>hydrocodone</i> or <i>benzhydrocodone</i> | Apadaz, Hysingla ER, Norco, Repraxain, Vicodin, Vicodin ES, Vicodin HP, Vicoprofen, Zohydro ER |
| Any drug that contains the word <i>hydromorphone</i> | Exalgo |
| Any drug that contains the word <i>meperidine</i> | Demerol |
| Any drug that contains the word <i>methadone</i> | Dolophine, Methadose |
| Any drug that contains the word <i>morphine</i> | Arymo Er, Avinza, Embeda, Kadian, Morphabond ER, MS Contin, Oramorph SR |
| Any drug that contains the word <i>oxycodone</i> | Codoxy, Combunox, Oxadydo (formerly Oxecta), Oxycet, Oxycontin, Percocet, Percodan, Roxicet, Roxicodone, Roxilox, Roxybond, Targiniq ER, Troxyca ER, Tylox, Xartemis XR, Xtampza ER |
| Any drug that contains the word <i>oxymorphone</i> | Opana, Opana ER |



| | |
|---|--------------------------|
| Any drug that contains the word <i>tapentadol</i> | Nucynta, Nucynta ER |
| Drugs That Do Not Contain Opioids | |
| Any drug that contains the term <i>sodium oxybate</i> or <i>sodium oxybates</i> | Xyrem, Xywav |
| Diazepam rectal gel | Diastat, Diastat Acudial |
| Methylphenidate transdermal system | Daytrana |
| (U.S. FDA, 2020b) | |

Household Trash Disposal

If a drug take-back program is not available and a medication is not on the flush list, the FDA (2018) provides the following guidance on how to dispose of drugs via household trash:

- Mix medicines (liquid or pills; do not crush tablets or capsules) with an unappealing substance such as dirt, cat litter, or used coffee grounds.
- Place the mixture in a container such as a sealed plastic bag.
- Throw away the container in the household trash.
- Delete all personal information on the prescription label of empty medicine bottles or medicine packaging, then trash or recycle the empty bottle or packaging.

Even after **fantanyl patches** have been used, a degree of medication remains. These patches should be folded over so the adhesive sticks together and no exposed area that contains the drug remains. It should then be flushed or disposed of per the household trash disposal guidelines.

Since **inhalers** are dangerous if punctured or if they come in contact with fire, they must be treated with care. Local trash and recycling facilities typically provide information on how to properly dispose of inhalers in their area.

Understanding Commonly Abused/Misused Drugs

The DEA (2020a) recognizes five classes of drugs that are frequently abused: opioids/narcotics, depressants, hallucinogens, stimulants, and anabolic steroids, with opioids being the most commonly misused. The extent to which the drug is reliably capable of producing intensely pleasurable feelings (euphoria) increases the likelihood of that substance being abused.

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. 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 other individuals who rely on productivity. Nonmedical use of stimulants poses serious health consequences, including addiction, cardiovascular events, and psychosis.
(NIDA, 2020)

| PRESCRIPTION DRUGS WITH HIGH POTENTIAL FOR DIVERSION/ABUSE | |
|--|---|
| Category | Drugs |
| Opioids | <ul style="list-style-type: none"> • Codeine • Fentanyl • Hydrocodone or dihydrocodeinone • Hydromorphone • Meperidine • Methadone • Morphine • Nalbuphine • Oxycodone • Oxymorphone |
| CNS depressants | <ul style="list-style-type: none"> • Barbiturates: pentobarbital • Benzodiazepines: alprazolam, chlordiazepoxide, diazepam, lorazepam, triazolam • Sleep medications (hypnotics): eszopiclone, zaleplon, zolpidem • Ketamine (can be classified as an analgesic, centrally acting nonopioid, anesthetic, or antidepressant depending on how it is used; when used appropriately, its primary purpose is sedation) |



| | |
|--------------|---|
| Stimulants | <ul style="list-style-type: none"> • Amphetamines • Methylphenidate |
| (NIDA, 2020) | |

SOURCES FOR MISUSED PAIN RELIEVERS

Most people involved in the misuse of prescription pain medication obtained it from family members or friends, whether given intentionally or not. Data from 2019 indicates the following sources from which individuals obtained such medications:

- 50.8%, free, bought, or taken from a friend/relative
- 35.7%, prescription from one doctor
- 6.2%, bought from drug dealer/stranger
- 1.1%, prescriptions from more than one doctor
- 0.8%, stolen from doctor's office, clinic, hospital, pharmacy
- 5.5 %, some other way

(SAMHSA, 2020)

COUNTERFEIT PILLS

The U.S. Drug Enforcement Agency (2021b) reported in 2021 that criminal drug traffickers are mass-producing and falsely marketing counterfeit prescription drugs to exploit the opioid crisis and prescription drug misuse in the United States. Approximately 10 million counterfeit pills were seized across all states, which is more than in 2018 and 2019 combined. The number of DEA-seized pills containing fentanyl has jumped over 400% since 2019, corresponding to a drastic increase and the highest-recorded number of overdose deaths, at more than 100,000.

Fake prescription pills are easily accessible and often sold on social media and e-commerce platforms, making them available to anyone. Many counterfeit pills are made to look like prescription opioids such as oxycodone (Oxycontin, Percocet), hydrocodone (Vicodin), and alprazolam (Xanax); or stimulants like amphetamines (Adderall). These pills typically contain fentanyl or methamphetamine.

The DEA warns that the only safe medications are those obtained from licensed and accredited medical professionals and that pills purchased anywhere other than a licensed pharmacy are dangerous and potentially lethal.





Left: Authentic oxycodone M30 tablet. Right: Counterfeit oxycodone M30 tablet containing fentanyl.
(Source: U.S. DEA.)

Recognizing Aberrant Drug-Related Behaviors

Some patients who are prescribed opioid pain medication are at increased risk for opioid misuse and diversion. These patients may demonstrate certain misuse behaviors that can provide clues to the clinician. By recognizing what are called *aberrant drug-related behaviors (ADRBs)*, healthcare professionals can respond appropriately and help patients to remain safe.

ADRBs may occur because a patient is experiencing poor pain control or has a 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.

ADRBs 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. Being aware of the behaviors described in the following box can help guide clinicians who are treating and monitoring patients who are receiving prescription opioid therapy for long-term pain management.

EXAMPLES OF ADRBs

Altering the mode of administration of drug delivery
Obtaining prescriptions from nonmedical sources

- Obtaining drugs from other prescribers without informing the clinician
- Stealing or borrowing drugs from others
- Concurrent drug/alcohol use
- Intoxicated/somnolent/sedated



- Occasional impairment
- Pattern of drug-related deterioration
- Medication misuse
- Overdose
- Repeated dose escalations even when warned
- Occasional unsanctioned dose escalation
- Unapproved use of the drug to treat other symptoms
- Unapproved use of drugs to treat nonpainful symptoms
- Repeated resistance to change despite adverse effects
- Noncompliance with therapeutic recommendations
- Increasing pain complaints
- Aggressive complaints about need for more or stronger medication
- Selling prescription drugs
- Prescription forgery
- Frequently lost prescriptions
- Inconsistent urine toxicology screen
- Unkempt appearance without other signs of impairment
- Request for early refills
- Request for specific drugs
- Request for refills instead of appointments with clinician
- Emergency department visits for pain medications
- Saving unused drugs for later use
- Canceled clinic visit
- Discharged from practice
- No show or no follow-up

(Maumus et al., 2020)

The presence of aberrant behaviors, however, may indicate a range of problems other than misuse or diversion, and the clinician must explore a **differential diagnosis**. Possible etiologies include addiction, pseudo-addiction, another psychiatric disorder, personality disorder, chronic boredom, mild encephalopathy, withdrawal states, and genuine undertreatment of pain. Therefore, it is important to monitor, document, and communicate any aberrant behaviors using



objective means and in a team-based fashion over the patient's entire course of care. This process will also remove any bias on the part of a single provider.

In the hospital setting, monitoring and responding to ADRBs is important in order to:

- Determine the success or failure of treatment
- Help prevent the transition of chronic pain to opioid dependence and SUD
- Help prevent psychiatric disorders such as anxiety and depression
- Identify undiagnosed SUD
- Identify patients at high risk for diversion
- Identify possible complications of opioid therapy (Maumus et al., 2020)

Drug Diversion in the Workplace

The opportunity for diversion of controlled substances from the workplace exists, and diversion of opioids is seen across all clinical disciplines and all levels of an organization, from management to frontline staff.

Despite a lack of comprehensive studies on the topic, one 2020 analysis of publicly reported diversion incidents involving healthcare workers found that diversion occurred in various settings: hospital/medical center/clinic (32%), practice (26%), long-term care (20%), pharmacy (17%), ambulance services (5%), and other (1%). Data on the diverter's role found doctors to be the most common diverters (36%), followed by nurses (31%), pharmacist/pharmacy tech (13%), executive/owner/operator (9%), paramedic/emergency services (6%), and other (2.5%) (Protenus, 2021). Nurses may be at increased risk for misuse or diversion of prescription medications due to working in environments where frequent and easy access to controlled substances is part of their daily work routine (TJC, 2019; Mumba, 2018).

Diversion may occur with opened or unopened vials, partially used doses of medication that are not wasted, and medication that has been disposed of and left in sharps containers. The drugs most commonly diverted from healthcare settings are opioids, but there is no precise data that defines the extent of drug diversion.

Every healthcare professional plays an important role in drug diversion prevention and should be able to recognize **patterns, trends, and behaviors** associated with drug diversion in the workplace. These may include:

- Consistently arriving early, staying late, or frequently volunteering for overtime
- Frequent breaks or trips to bathroom
- Heavy wastage of drugs
- Drugs and syringes in pockets



- Anesthesia record does not reconcile with drug dispensed and administered to patient
- Patient has unusually significant or uncontrolled pain after anesthesia
- Higher pain score as compared to other anesthesia providers
- Times of cases do not correlate when provider dispenses drug from automated dispenser
- Inappropriate drug choices and doses for patients
- Missing medications or prescription pads
- Drugs, syringes, needles improperly stored
- Signs of medication tampering, including broken vials returned to pharmacy
- Compromised product containers
- Frequent medication losses, spills, or wasting
- Controlled substances removed without a doctor's order
- Controlled substances removed on recently discharged or transferred patient
- Controlled substances removed for a patient not assigned to the nurse
- Medication documented as given but not administered to the patient
- Frequent reports of ineffective pain relief from patients
- Frequent unexplained disappearances from the unit
- Incorrect controlled substance counts
- Consistently documenting administration of more controlled substances than other nurses
- Large amounts of narcotic wastage
- Numerous corrections on medication records
- Offers to medicate coworkers' patients for pain
- Saving extra controlled substances for administration at a later time
- Altered verbal or phone medication orders
- Variations in controlled substance discrepancies among shifts or days of the week
(NCSBN, 2018; AANA, n.d.; U.S. DEA, 2021c; Brummond et al., 2017)

DEA 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 a patient from multiple practitioners
- Dispensing for patients seeking early prescription refills

(WVEPMP, 2016)

Essential **organizational steps** to address drug diversion in the workplace include:

- **Prevention.** Healthcare facilities must have systems in place to guard against theft and diversion of controlled substances. It is important that all staff understand and comply with these protocols, and act in ways to minimize unauthorized access or opportunities for tampering and misuse.
 - **Detection.** Systems can include video monitoring of high-risk areas, active monitoring of pharmacy and dispensing record data, and training staff to be aware of and alert for behaviors and other signs of potential diversion activity.
 - **Response.** Appropriate responses include establishing a just culture in which reporting drug diversion is encouraged, assessing harm to patients, consulting with public health officials when tampering with injectable medication is suspected, and promptly reporting to enforcement agencies.
- (TJC, 2019)

Institutional Measures to Prevent Prescription Drug Misuse

Institutional measures are also an important part of addressing the opioid epidemic. Several such measures are discussed below.



MEDICATION FORMULATION

Manufacturers of prescription drugs continue to work on new formulations of opioid medications, known as **abuse-deterrent formulations (ADFs)**, which include technologies designed to prevent people from misusing them by snorting or injection. Abuse-deterrent formulations have been shown to decrease the illicit value of drugs. Several ADF opioids are on the market, and the FDA has called for the development of ADF stimulants.

Abuse deterrent strategies currently being used include:

- Physical or chemical barriers that prevent the crushing, grinding, or dissolving of drugs
- Agonist/antagonist combinations that cause an antagonist (which will counteract the effect of the drug) to be released if the product is manipulated
- Aversive substances that are added to create unpleasant sensations if the drug is taken in a way other than directed
- Delivery systems such as long-acting injections or implants that slowly release the drug over time
- New molecular entities or prodrugs that attach a chemical extension to a drug that renders it inactive unless taken orally

The development of effective, nonaddicting pain medications is also a public health priority. Researchers are exploring alternative treatment approaches that target other signaling systems in the body, such as the endocannabinoid system, which is also involved in pain (NIDA, 2020).

“PAIN PUMP”

An implanted intrathecal drug delivery system, also known as a pain pump, is a surgically implanted device programmed to deliver small amounts of pain medication directly to the intrathecal space of the spinal cord. By administering the medication directly to this area, much lower dosages are required to relieve pain, often with fewer medication side effects compared to oral formulations (Sivanesan, 2023a).

PRESCRIPTION DRUG MONITORING PROGRAMS

Prescription drug monitoring programs (PDMPs) 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. All U.S. states, Washington, D.C., and U.S. territories have operational PDMPs and share data via the Prescription Monitoring Information Exchange (PMIX) National Architecture (PDMP TTAC, 2021).



SURVEILLANCE SYSTEMS

Prescription Behavior Surveillance System (PBSS) is a public health surveillance system that uses PDMP data to monitor trends in prescribing behaviors for controlled substances at the state or county level. In 2010, PBSS began using PDMP data from participating states to report on a variety of indicators of prescribing behavior, including prescribing rates by patient age, sex, drug type, dose, and source of payment. Although data on clinical indication is not collected, the system tracks various controlled substance indicators of possible misuse, including cash payment for prescriptions and “multiple-provider episodes,” in which a person uses multiple prescribers and pharmacies within specified periods to obtain controlled substances.

PBSS collects data on prescriptions of controlled substances to provide indicators of possible inappropriate medical use to both federal and state collaborators. PBSS has developed approximately 43 prescription behavior measures, including:

- Prescription rates by drug class and individual drug
- High daily opioid dosages (≥ 90 morphine milligram equivalents [MME]/day)
- Average daily opioid dosage
- Overlapping opioid prescriptions and opioid-benzodiazepine prescriptions
- Multiple-provider episode (MPE) rates by drug schedule or class, payment sources
- Indicators of possible inappropriate prescribing and dispensing

PBSS database can detect changes in prescribing patterns earlier than other administrative health data (e.g., Medicaid claims data) (Strickler et al., 2020).

PRESCRIBING AND ADMINISTERING OPIOID ANTAGONISTS (NALOXONE)

The number of opioid-related overdose deaths has grown drastically in recent years. Fortunately, the availability of the opioid overdose-reversal drug naloxone has been shown to reduce the rate of these overdose deaths, and laws have been enacted in all U.S. states to expand access to this life-saving medication.

Prescribing Naloxone

Naloxone is an opioid antagonist that blocks opioid receptors. The drug comes in intravenous, intramuscular, and intranasal formulations and is FDA-approved for use in an opioid overdose and for the reversal of respiratory depression associated with opioid use. The CDC guidelines recommend that naloxone be coprescribed to any individual who is prescribed high-dose opioid therapy (≥ 50 MME per day) or any combination of opioids and benzodiazepines. Recommendations also call for overdose prevention education to both patient and household members.



Candidates for naloxone are those who:

- Take high doses of opioids for long-term management of chronic pain
- Receive rotating opioid medication regimens
- Have been discharged from emergency medical care following opioid poisoning or intoxication
- Take certain extended-release or long-acting opioid medication
- Have had a period of abstinence from opioids, including those recently released from incarceration

Pregnant women can be safely given naloxone in limited doses under the supervision of a doctor (SAMHSA, 2021b).

Patient Education Regarding Naloxone Administration

Patient education includes showing patients, their family members, or caregivers how to administer naloxone. The medication can be given by intranasal spray or intramuscular, subcutaneous, or intravenous injection.

Patients given an automatic injection device or nasal spray should keep the item available at all times. The medication must be replaced when the expiration date passes and if exposed to temperatures below 39 °F or above 104 °F.

Naloxone is effective if opioids are misused in combination with other sedatives or stimulants. It is **not effective** in treating overdoses of benzodiazepines or stimulant overdoses involving cocaine and amphetamines (SAMHSA, 2021b).

SIGNS OF OPIOID OVERDOSE

Recognizing the signs of opioid overdose can save a life. They include:

- Small, constricted “pinpoint pupils”
- Falling asleep or losing consciousness
- Slow, weak, or no breathing
- Choking or gurgling sounds
- Limp body
- Cold and/or clammy skin
- Discolored skin (especially in lips and nails)
(CDC, 2021e)



Side effects of naloxone may include an allergic reaction from naloxone, such as hives or swelling in the face, lips, or throat, for which medical help should be sought immediately. Use of naloxone also causes symptoms of opioid withdrawal. Opioid withdrawal symptoms include:

- Feeling nervous, restless, or irritable
- Body aches
- Dizziness or weakness
- Diarrhea, stomach pain, or nausea
- Fever, chills, or goose bumps
- Sneezing or runny nose in the absence of a cold

Since naloxone is a temporary treatment and its effects will wear off, medical assistance must be obtained as soon as possible after administering/receiving naloxone (SAMHSA, 2021b).

Expanding Access to Naloxone

Recommendations regarding increased access to naloxone include:

- Allowing providers to prescribe naloxone to third parties who may witness an overdose (i.e., family and friends of people who use opioids)
- Removing the need for individual prescriptions by allowing naloxone to be dispensed without a patient-specific prescription
- Allowing and equipping law enforcement officers to carry and administer naloxone
- Providing naloxone to people at risk of overdose who are leaving hospital, treatment, or corrections settings
- Permitting local agencies and organizations to distribute naloxone to community members who may be likely to witness an overdose
- Enacting “Good Samaritan” laws that provide immunity to people who experience or witness an overdose to encourage them to call 911 for help without fear of arrest
- Reducing costs for individuals and state governments by mandating public and private insurance coverage and negotiating with manufacturers for lower-cost bulk purchases (PEW, 2020)



CHEMICAL DEPENDENCY AND IMPAIRMENT IN THE WORKPLACE

Impairment from substance abuse, drug diversion, or other physical or psychological causes has far-reaching impact. It not only threatens the health and safety of patients but also creates serious consequences for the impaired professional, colleagues, and the healthcare facility that employs the impaired clinician.

The Nurse Worklife and Wellness Study found that in the year prior to the study illicit drug use among nurses was 5.7% and misuse of prescription drugs was 9.9% (Trinkoff et al., 2022). The exact number of nurses afflicted is unknown, but the prevalence of addiction among nurses is believed to mirror the general population. In 2020, an estimated 37.3 million Americans aged 12 or older were current illicit drug users, meaning they had used an illicit drug during the month prior to the survey interview. This estimate represents 13.5% of the general population aged 12 or older (SAMHSA, 2021c).

Risk Factors for Substance Abuse

Healthcare professionals may be at increased risk for abuse of prescription-type medication due to the added risk of working in environments where frequent and easy access to controlled substances is part of their daily work routine. For instance, evidence suggests the types of drugs abused by nurses may depend on what drugs are most accessible in their individual work environments. The most common prescription drugs abused by nurses are benzodiazepines and opioid analgesics. Nurses who abuse prescription drugs are those who have the greatest access, such as nurse anesthetists (American Addiction Centers, 2022).

WORKPLACE RISK FACTORS

- High-stress work environment
- Low job satisfaction
- Role strain
- Long hours and irregular shifts
- Fatigue
- Periods of inactivity or boredom
- Remote or irregular supervision
- Easy access to controlled substances
- Lack of education regarding substance use disorders
- Nursing attitudes toward drugs
- Lack of pharmaceutical controls in the workplace



- “Enabling” by peers and managers
(Addictions.com, 2021; Smith, 2021)

Signs of Substance Abuse and Impaired Practice

Impairment renders a clinician unsafe to provide patient care. Physical, psychosocial, and behavioral clues, however, can be subtle and easily overlooked. Colleagues may notice clues but seek other explanations and avoid suggesting substance abuse as a possible cause.

Generally, disruptions in family, personal health, and social life manifest long before an individual shows evidence of impairment at work. Thus, all indicators, no matter how subtle, appearing in the workplace must be taken seriously. Any of the following may be signs of impairment in the workplace, and patterns of such behavior and a combination of these signs are cause for increased suspicion.

| COMMON SIGNS OF IMPAIRMENT | |
|----------------------------|--|
| Type | Signs |
| Physical | <ul style="list-style-type: none"> • Progressive deterioration in personal appearance • Wearing long sleeves when inappropriate • Diminished alertness, confusion, or memory lapses • Frequent runny nose • Dilated or constricted pupils • Bloodshot or glassy eyes • Unsteady gait • Slurred speech • Diaphoresis • Frequent nausea, vomiting, or diarrhea • Tremors or shakes, restlessness • Weight gain or loss |
| Psychosocial | <ul style="list-style-type: none"> • Increasing isolation or withdrawal from colleagues • Personal relationship problems • Dishonesty with self and others • Intoxication at social functions • Defensiveness (e.g., denial, rationalization) • Inappropriate verbal or emotional responses |



| | |
|---|---|
| | <ul style="list-style-type: none"> • Mood swings, overreaction to criticism, overexcitement • Personality change (mood swings, anxiety, panic attacks, depression, lack of impulse control, suicidal thoughts or gestures, feelings of impending doom, paranoid ideation) • Feelings of shame, guilt, loneliness, sadness |
| Behavioral | <ul style="list-style-type: none"> • Absenteeism (absences without notification, excessive use of sick days, excessive tardiness) • Confusion, memory loss, and difficulty concentrating or recalling details and instructions • Ordinary tasks requiring greater effort and consuming more time • Frequent complaints of vague illness, injury, pain • Insomnia • Rarely admitting errors or accepting blame for errors or oversight • Unreliability in keeping appointments and meeting deadlines • Work performance that alternates between periods of high and low productivity • Working excessive amounts and showing up on days not scheduled • Making mistakes due to inattention, poor judgment, bad decision-making • Sleeping on the job • Elaborate, implausible excuses for behavior |
| (Nyhus, 2021; AANA, n.d.; Toney-Butler & Siela, 2020) | |

Intervening and Reporting Impaired Practice in a Colleague

When planning to intervene in a case of suspected impairment, the first step is knowing state laws and rules pertaining to substance abuse and impairment in the workplace. It is also important to be familiar with and to follow the organization's policies and procedures relating to substance abuse and impairment.

Healthcare professionals can follow these steps when they begin to notice possible impaired practice in a colleague:

- Observe job performance; be aware of signs and symptoms of impairment that are common in the workplace.
- Look for patterns of behavior indicating possible impairment that are consistent over a period of time.



- Document (date, time, place, witnesses) any inappropriate behavior; be concise and include objective, clear, and factual information:
 - What happened?
 - Who was involved?
 - When did the incident occur?
 - How was it discovered?
 - Where did it occur?
 - Were there any witnesses?

Supervisors should be involved in planning an intervention and taking steps to respond to concerns about impairment in the workplace.

- Planning and participating in an intervention is a critical responsibility of the manager, and it should never be implemented alone.
- It is important to develop a careful plan of action before implementing an intervention and also important to secure help.
- Interventions should focus on documented facts.
- The primary objective of an intervention is to request the clinician refrain from practice until a fitness-to-practice evaluation has been completed (IPN, 2023).
- To assure safety, a clinician who is impaired should never be left alone and should not be permitted to drive.

RELUCTANCE TO REPORTING

There are many reasons why peers may be reluctant to report their colleagues for impaired practice, including:

- Uncertainty about reporting requirements
- Uncertainty of consequences to their peer, such as loss of license and job
- Concern about retaliation by peer
- Fear of social stigma of reporting a peer
- Reluctance to report if not 100% sure

State practice acts typically require licensed healthcare professionals to **report** any other similarly licensed professional when they reasonably believe that the practitioner is or may be guilty of unprofessional conduct or unfit to practice. State laws similarly include confidentiality



provisions for the person who makes such a report and also provide for immunity from civil or criminal prosecution for good faith reporting. All licensed healthcare professionals must become familiar with the requirements of the applicable practice act and laws in their own jurisdiction.

NONPHARMACOLOGIC INTERVENTIONS FOR PAIN

Evidence-based nonpharmacologic therapies are safe when correctly administered and can be effective components of comprehensive pain management that can reduce the need for opioids. Nonpharmacologic therapies can be the sole intervention, or they can be combined with other treatments. Nonpharmacologic interventions include physical, psychological, and mind-body modalities.

Many disciplines are involved in managing a patient's pain through the use of these nonpharmacologic approaches. The most important member of the interdisciplinary team is the person with pain—the patient. Other team members may include:

- Significant others (family, friends, etc.)
- Physicians, physician assistants, and nurse practitioners
- Nurses
- Psychologists
- Occupational therapists
- Physical therapists
- Recreational therapists
- Vocational counselors

Physical Modalities

Physical modalities for relief of pain refer to any therapeutic medium that uses the transmission to or through the patient of thermal, electrical, acoustic, radiant, or mechanical energy.

- Thermal modalities (heat and cold)
- Manual modalities (massage, manipulation therapy)
- Acupuncture
- Electrophysical agents (TENS, iontophoresis, percutaneous electric nerve stimulation)
- Acoustic modalities (ultrasound, phonophoresis, shortwave and microwave diathermy, vibroacoustic therapy)
- Light therapy (low-level laser, ultraviolet light)



- Interventional modalities (injection, radiofrequency ablation, intrathecal pump, spinal cord stimulator)
- Dry needling

SPINAL CORD STIMULATOR

A spinal cord stimulator is a surgically implanted device used to relieve pain via low-level electrical impulses sent directly into the spinal cord. This modality is typically employed when other pain treatment options have failed to provide sufficient relief. The device consists of electrodes placed in the epidural space and a generator (battery pack) placed under the skin, usually near the buttocks or abdomen. Spinal cord stimulators allow patients to use a remote control to send electrical impulses when they feel pain. Traditional spinal cord stimulators replace the sensation of pain with paresthesia (light tingling), while newer devices provide “sub-perception” stimulation that cannot be felt (Sivanesan, 2023b).

Psychological Modalities

One of the most common types of psychotherapy used in pain management is **cognitive-behavioral therapy (CBT)**. CBT can be described as the “gold standard” psychological treatment for persons with a wide range of pain issues. It can be used alone or in conjunction with medical or interdisciplinary rehabilitation treatments. Currently, CBT is the prevailing psychological treatment for individuals with chronic pain issues (Physiopedia, 2022a).

Acceptance and commitment therapy (ACT) helps patients to shift their primary focus from reducing or eliminating pain to fully engaging in their lives. The goal of the therapy is to help patients accept whatever discomfort exists, both physical and emotional, while continuing to live their lives according to their values (Glasofer, 2021).

Mind-Body Techniques

Biofeedback is the use of instrumentation to mirror psychophysiologic processes, such as blood pressure, heart rate, and skin temperature, of which an individual normally is unaware and which may be brought under voluntary control. Types of biofeedback devices include:

- Electromyogram (EMG)
- Thermal
- Neurofeedback or electroencephalography (EEG)
- Electrodermal activity (EDA)
- Heart rate variability (HRA)



Relaxation therapies have been found helpful in the management of chronic headaches and other types of chronic pain. Relaxation encourages reduction in muscle tension, resulting in a decrease in pain intensity (NCCIH, 2022).

Hypnosis can provide analgesia, reduce stress, relieve anxiety, improve sleep, improve mood, and reduce the need for opioids. It can also enhance the effectiveness of other forms of relaxation therapies and biofeedback for pain (Cosio & Lin, 2020).

Diverting attention (**distraction**) from feelings and thoughts of pain is a well-researched pain coping strategy. Mental distractions actually block pain signals from the body before they ever reach the brain (Stanford Health Care, 2021; Keane, 2021).

Mindfulness-based interventions (e.g., meditation) have been found to have significant effects on chronic pain, yet the mechanisms underlying these effects are not well understood. There are several types of mindfulness-based interventions, including:

- Mindfulness-based stress reduction (MBSR)
- Mindfulness-based cognitive therapy (MBCT) (see above)
- Primary care brief mindfulness training (PCBMT)
- Mindfulness-based exposure therapy (MBET)
- Mantra-based meditation training

(Cosio & Demyan, 2021)

Virtual reality provides immersive experiences that absorb more of the brain's attention. With fewer mental resources left to process pain signals, people perceive less pain. VR causes a reduction of the electrical signals through which neurons communicate. Further validation tests of EEG and investigation on VR effects are needed to better understand how our brain acts while immersed in a virtual world (VirtualTimes, 2021).

Mirror therapy is a rehabilitation therapy in which a mirror is placed between the arms or legs so that the image of a moving, nonaffected limb gives the illusion of normal movement in the affected limb. Mirror therapy exploits the brain's preference to prioritize visual feedback over somatosensory/proprioceptive feedback concerning limb position. The reflection "tricks" the brain into thinking there are two healthy limbs (Physiopedia, 2022b).

Yoga is a mind-body and exercise practice that helps relieve chronic pain. Yoga has many of the same benefits as mindfulness practice due to the common focus on breath, body, and present-moment awareness. There are different types of yoga, with the most evidence of benefit being shown through Iyengar yoga, hatha yoga, and Viniyoga (DHWA, 2021).

Tai chi and **qigong** are forms of traditional Chinese exercise that incorporate the concepts of two opposing forces—yin and yang. Both exercises are based on the idea and core principle that



increasing energy in the body, known as *chi*, through gentle and repeated movements can enhance a person's well-being (Marks, 2022; Winchester Hospital, 2022).

Occupational Therapy and Pain Management

The role of the occupational therapist within an integrative pain management program focuses on function in daily living and takes a holistic and comprehensive approach to evaluate structural, physiologic, psychological, environmental, and personal factors that influence the experience of pain. The information obtained by patient evaluation is then used in the application of self-management strategies, functional activities, hands-on techniques, and specific exercises to improve function and participation.

OCCUPATIONAL THERAPY INTERVENTIONS

Depending on the area impacted by chronic pain, the occupational therapist provides the following interventions:

Physical mobility:

- Adaptive equipment selection and training
- Positioning equipment and strategies
- Functional mobility training (e.g., static positioning, dynamic movement, transfers, lifting and bending techniques)

Activities of daily living/self-care:

- Neuromuscular re-education
- Nerve mobilization
- Functional range of motion and strengthening exercises
- Activity pacing and energy conservation strategies
- Ergonomic and body mechanics training
- Fall prevention and safety
- Home evaluation

Instrumental activities of daily living:

- Adaptive equipment selection and training
- Transportation training, including comprehensive driver evaluations and driver rehabilitation



Health management:

- Patient education and disease self-management training, including trigger identification, symptom tracking, and pain flare-up planning
- Pain coping strategies, including physical modalities, complementary and alternative pain coping strategies, sensory strategies, self-regulation, and mobilization
- Pain and assertive communication training
- Medication management
- Eating routine strategies to avoid dietary pain triggers and improve energy management
- Establishing sustainable physical activities
- Time management strategies

Rest and sleep:

- Sleep hygiene and positioning strategies
- Cognitive behavioral therapy for insomnia
- Energy conservation and fatigue management

Education and work:

- Academic and work accommodations
- Ergonomic and body mechanics training
- Sensory strategies to monitor environmental triggers or exacerbating factors
- Advocacy and self-advocacy training
- Assertive communication training
- Community reintegration, including gradual re-entry plans
- Activity pacing and energy
- Environmental modifications
- Community and online resources exploration
- Compensatory cognitive strategies



Play, leisure, and social participation:

- Strategies to prevent social isolation
- Assertive communication strategies
- Personal values and interests exploration

(Reeves et al., 2022)

PRINCIPLES FOR OCCUPATIONAL THERAPISTS

The International Association for the Study of Pain (IASP, 2021a) identifies the following principles that should guide occupational therapists in the management of pain. These principles include:

1. Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.
2. Pain is a complex phenomenon and a multidimensional experience.
3. Pain is a public health problem with social, ethical, and economic considerations.
4. People can experience pain at any stage of life.
5. The impact of pain on daily life needs to be considered in terms not only of physical limitations but also emotional and social influences on health and patient-defined well-being.
6. Activity analysis to explore the impact of pain on occupational performance (engagement in activities) needs to be considered from different perspectives, including factors (biological/psychological/spiritual/sociopolitical/environmental) that contribute to acute (or potential) challenges in the individual's everyday life.
7. Cultural aspects relevant to pain expression and the pain experience need to be considered with all patients.
8. Self-management strategies need to focus on scheduling and adapting activities so that the person's energy is maintained and pain is minimized.
9. Assessment and intervention plans to manage pain need to be collaborative between patient and therapist to ensure that the patient's goals for intervention are identified and the strengths of the patient are recognized.
10. Occupational therapy assessment and management must be based on best available research evidence.
11. Prevention and intervention need to be addressed at both micro (individual) and macro (sociopolitical) levels.



Physical Therapy and Pain Management

Physical therapy is one of the most important nonpharmacologic measures to be considered in the management of pain. The physical therapist evaluates the patient with pain in order to:

- Determine the identity of the pain mechanism(s) to guide treatment
- Identify physical and psychosocial factors impacting pain so they can be addressed
- Assess the impact of pain on physical and psychosocial function
- Select appropriate goals
- Determine whether the patient requires referral to other healthcare providers

The goals of physical therapy include the reduction of pain, restoration of function, improved mobility, prevention or limitation of permanent physical disabilities, and encouragement of self-management through the use of physical, cognitive, and behavioral approaches to help reduce the impact of pain and disability (O’Sullivan et al., 2019).

PHYSICAL THERAPY INTERVENTIONS

When physical therapists work with patients who are experiencing pain, tests and measures are utilized to determine the causes of pain and to assess its intensity, quality, physical characteristics, and progression. Patients are also evaluated for risk factors for pain in order to prevent future pain issues. These factors may include disease history, cognitive and psychological factors, negative beliefs, and sedentary lifestyle.

Once contributors to the pain are identified, the therapist works with the patient to design an evidence-based management program with goals that are specific, measurable, achievable, relevant, and time-framed.

The physical therapist then implements the management program, which includes active approaches and passive approaches as indicated. These approaches include:

- Education about pain and how to manage pain, working with the patient toward regaining the ability to perform normal activities of daily living.
- Strengthening and flexibility exercises to improve movement with less pain. A graded exercise program may be instituted that gradually increases according to abilities. Exercises help to improve movement and coordination, reduce stress and strain on the body, and decrease pain.
- Manual therapies using hands-on techniques to manipulate or mobilize tight joint structures and soft tissues. Manual therapy may help increase range of motion, improve tissue quality, and reduce pain. Such therapies may include peripheral joint mobilization, myofascial mobilization, spinal mobilization, soft tissue mobilization, and therapeutic massage.



- Instruction in proper postural awareness and body mechanics, in order to help patients use their body more efficiently.
- Physical agents, which may include electrotherapies.

The therapist educates and supports the patient to adopt active rather than solely passive pain-management strategies that are meaningful to the patient and achievable, using motivational strategies and adherence techniques to support compliance.

Physical therapists include cognitive and behavioral approaches that support improved functional movement and pain outcomes, along with self-management strategies, as a key component of the management plan (IASP, 2021b).

MODALITIES

Modalities physical therapists may employ in pain management include:

- Thermotherapy
 - Dry heat
 - Hot packs
 - Paraffin baths
 - Tecar therapy
- Cryotherapy
 - Ice packs
 - Ice spray
 - Immersion
 - Ice massage
 - Cryokinetics
- Biofeedback
- Manual therapies
 - Massage
 - Connective tissue massage
 - Therapeutic massage
 - Manipulation/mobilization
 - Dry needling
 - Soft tissue mobilization
 - Spinal and peripheral joint mobilization



- Neural tissue mobilization
 - Passive range of motion
 - Electric stimulation
 - Electric stimulation for tissue repair (ESTR)
 - Functional electrical stimulation (FES)
 - High-voltage pulsed current (HVPC)
 - Neuromuscular electrical stimulation (NMES)
 - Transcutaneous electrical nerve stimulation (TENS)
 - Electrotherapeutic delivery of medications
 - Iontophoresis
 - Hydrotherapy
 - Contrast bath
 - Pools
 - Pulsatile lavage
 - Whirlpool tanks
 - Acoustic
 - Ultrasound
 - Phonophoresis
 - Traction devices
 - Intermittent
 - Positional
 - Sustained
 - Light therapy
 - Laser (low level and high power)
 - Ultraviolet
 - Infrared and near infrared
 - Cold laser therapy
- (Physiopedia, 2021)

PRINCIPLES FOR PHYSICAL THERAPISTS

The International Association for the Study of Pain (IASP, 2021b) identifies the following principles to guide physical therapists in the management of pain. These principles include:



1. Pain is a dynamic and complex experience involving interaction of biological, physical, psychological, social, and environmental factors specific to each individual.
2. Pain may be acute, acute on chronic, recurrent, chronic/persistent, and occur at any stage across the lifespan.
3. Pain assessment, treatment, and management are influenced by cultural, institutional, social, and regulatory factors.
4. Pain must be assessed in a comprehensive, safe, ethical, and consistent manner using valid and reliable assessment tools and outcome measures that help inform prognosis-making with consideration of risks, benefits, costs, and limitations of interventions.
5. Physical therapists should demonstrate empathic and compassionate patient communication when establishing person-centered pain-related goals and supporting self-management strategies.
6. Comprehensive pain management should be supported by sound theoretical models and empirical evidence and facilitate active patient involvement in developing lifelong healthy pain behaviors.
7. The physical therapist is an essential member of the pain management team and advocates for an individualized pain management plan that integrates the perspectives of patients, social support systems, and team members.

CONCLUSION

Currently, there is an epidemic of prescription drug abuse, diversion, and overdose deaths across the country. The complexity of this crisis creates challenges for federal, state, and local governments as well as nongovernmental partners who must confront the growing impacts on the community.

Overprescribing opioids for more than a decade has contributed to prescription opioid addiction and led to a sharp increase in opioid addiction, which is associated with a significant increase in heroin abuse, health compromise, and overdose deaths. 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.

Healthcare professionals are in a unique position to address this dual epidemic with the right clinical skills and knowledge in 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 be priority in every clinical practice setting.





RESOURCES

CDC Clinical Practice Guideline for Prescribing Opioids for Pain

https://www.cdc.gov/mmwr/volumes/71/rr/rr7103a1.htm?s_cid=rr7103a1_w

Controlled substance public disposal locations search utility

<https://apps2.deadiversion.usdoj.gov/pubdispsearch/spring/main?execution=e1s1>

Drug overdose prevention in states

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

Opioid prescribing guideline resources (CDC)

<https://www.cdc.gov/opioids/providers/prescribing/index.html>

Opioid Risk Tool

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

Opioid safety: veteran/patient education (Veteran's Administration)

https://www.va.gov/PAINMANAGEMENT/Opioid_Safety/Patient_Education.asp

Pain Assessment and Documentation Tool (PADT)

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

Risk Assessment and Mitigation Strategy (REMS) sample document

https://www.accessdata.fda.gov/drugsatfda_docs/rem/s/Zyprexa_Relprevv_2021_04_28_REMS_Document.pdf

Screening and assessment tools chart (National Institute on Drug Abuse)

<https://www.drugabuse.gov/nidamed-medical-health-professionals/screening-tools-resources/chart-screening-tools>

State prescription drug laws

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

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TEST

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1. When monitoring the “Five As” of pain management, which question will the prescriber ask?
 - a. “Do you have a family history of drug misuse?”
 - b. “Has your level of function improved?”
 - c. “How satisfied are you with me as a prescriber?”
 - d. “Are there problems with your pharmacy filling your prescriptions?”

2. Which statement is a part of the 2022 CDC guidelines for prescribing opioids?
 - a. The guidelines apply only to primary care physicians and physician assistants.
 - b. Concurrent use of opioids and central nervous system depressants is always beneficial.
 - c. Assessing the risks and addressing the potential harms of opioid use with the patient is recommended.
 - d. Prescribing long-acting instead of immediate-release opioids when starting opioid therapy is recommended.

3. Through which route do individuals **most** commonly obtain prescribed medications for misuse?
 - a. Purchasing from drug dealers
 - b. Through a prescription from a doctor
 - c. Free, purchased, or taken from friends or relatives
 - d. Stealing from a doctor’s office, clinic, hospital, or pharmacy

4. Which behavior would a clinician consider to be the **most** likely example of aberrant drug-related behavior (ADRB) in their patient?
 - a. The patient states that they are still feeling a lot of pain despite beginning opioid therapy last week.
 - b. The patient’s partner reports that the patient has been complaining of boredom lately.
 - c. The patient phones the clinic stating that they lost their prescription again and need an early refill.
 - d. The patient’s partner reports that the patient has not been taking all of their prescribed pain medication.



5. Which behavior is **most** likely to be associated with drug diversion in the workplace?
 - a. Poor hygiene and disheveled appearance at work
 - b. Sloppy and illegible charting on medication records and nurses' notes
 - c. A pattern of incorrect narcotic counts
 - d. Frequent tardiness and absences from work

6. Which education does the clinician provide to the patient and family regarding the use of naloxone in cases of drug overdose?
 - a. Naloxone is effective in treating overdoses due to cocaine and amphetamines.
 - b. It is never safe to administer naloxone to pregnant women.
 - c. There are no known side effects from naloxone use.
 - d. Both intranasal spray and parental forms of the drug are available.

7. Which action is a common **behavioral** sign of impairment due to substance use?
 - a. Readily accepting blame for errors or oversights
 - b. Nausea vomiting or diarrhea
 - c. Making mistakes due to poor judgment
 - d. Fear of losing one's license to practice

8. Which mind-body technique for pain management teaches a patient to bring blood pressure or skin temperature under voluntary control?
 - a. Biofeedback
 - b. Mindfulness-based cognitive therapy
 - c. Hypnosis
 - d. Virtual reality therapy

