COURSE #95131 — 2 CONTACT HOURS/CREDITS RELEASE DATE: 10/01/22 EXPIRATION DATE: 09/30/25

Prescription Opioids and Pain Management: The Tennessee Guidelines

HOW TO RECEIVE CREDIT

- Read the enclosed course.
- Complete the questions at the end of the course.
- Return your completed Evaluation to NetCE by mail or fax, or complete online at www.NetCE.com. (If you are a physician or Florida nurse, please return the included Answer Sheet/Evaluation.) Your postmark or facsimile date will be used as your completion date.
- Receive your Certificate(s) of Completion by mail, fax, or email.

Faculty
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Faculty Disclosure
Contributing faculty, John M. Leonard, MD, has disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

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Division Planners/Director Disclosure
The division planners and director have disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

Audience
This course is designed for all clinicians who may alter prescribing practices or intervene to prevent drug diversion and inappropriate opioid use.

Accreditations & Approvals
In support of improving patient care, NetCE is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

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NetCE designates this continuing education activity for 2 ANCC contact hours.

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Special Approvals

This activity is designed to comply with the requirements of California Assembly Bill 1195, Cultural and Linguistic Competency.

This course is designed to meet the Tennessee requirement for 2 hours of education on the prescribing of controlled substances, including instruction in the Tennessee Chronic Pain Guidelines.

About the Sponsor

The purpose of NetCE is to provide challenging curricula to assist healthcare professionals to raise their levels of expertise while fulfilling their continuing education requirements, thereby improving the quality of healthcare.

Our contributing faculty members have taken care to ensure that the information and recommendations are accurate and compatible with the standards generally accepted at the time of publication. The publisher disclaims any liability, loss or damage incurred as a consequence, directly or indirectly, of the use and application of any of the contents. Participants are cautioned about the potential risk of using limited knowledge when integrating new techniques into practice.

Disclosure Statement

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Course Objective

The purpose of this course is to provide updated clinical guidance on management of chronic pain, including opioid prescription drug use that conforms with the Tennessee Department of Health recommendations and core competencies developed by the Commission on Pain and Addiction Medicine Education. Included is a discussion of clinical tools used to assess the risk of drug-seeking and drug-diverting behaviors. The goal is best practice chronic pain management while preventing the growing public health problem of drug misuse, diversion, and overdose.

Learning Objectives

Upon completion of this course, you should be able to:

1. Apply epidemiologic trends in opioid use and misuse to current practice so at-risk patient populations can be more easily identified, evaluated, and treated.
2. Devise treatment plans for patients with pain that address patient needs, inform patient expectations, and reduce the risk of drug misuse and diversion in accordance with Tennessee clinical practice guidelines.
3. Evaluate behaviors that may indicate drug seeking or diverting as well as approaches for patients suspected of misusing opioids.
4. Apply state and federal laws governing the proper prescription and monitoring of controlled substances.

EVIDENCE-BASED PRACTICE RECOMMENDATION

Sections marked with this symbol include evidence-based practice recommendations. The level of evidence and/or strength of recommendation, as provided by the evidence-based source, are also included so you may determine the validity or relevance of the information. These sections may be used in conjunction with the course material for better application to your daily practice.

INTRODUCTION

Relief from pain leads the list of reasons for seeking medical care, and pain management is among the most challenging clinical issues in healthcare professionals' practice. The goals of pain management are to relieve suffering, restore functional capacity, and improve quality of life while minimizing adverse effects and avoiding unintended consequences such as misuse, addiction, and overdose.

Prescription opioid analgesics are approved by the U.S. Food and Drug Administration (FDA) for use in treating moderate and severe pain but can also have serious risks and side effects. Opioids are broadly accepted for managing acute pain, cancer pain, and end-of-life care, but are controversial for treatment of chronic pain not caused by a malignancy. In response to the long-standing neglect of severe pain, indications for opioid analgesic prescribing were expanded in the 1990s, followed a decade later by an increasing trend toward inappropriate opioid prescription management and growing drug misuse, dependency, and overdose. The conundrum persists: how to provide appropriate and effective treatment of serious chronic pain while avoiding practice patterns that lead to opioid misuse, drug diversion, addiction, and overdose.

Common prescription opioids include oxycodone (Oxycontin), hydrocodone (Vicodin), morphine, and methadone. Fentanyl is a synthetic opioid many times more powerful than other opioids, reserved for treatment of severe pain, such as that associated with advanced cancer. Illegally manufactured and distributed fentanyl is a growing problem throughout the United States.

Patients show substantial variations in opioid analgesic response and tolerability and may exhibit a range of psychologic, emotional, and behavioral responses that reflect inadequate pain control, an emerging opioid use problem, or both. The delivery of best practice care to patients with pain requires appreciation of the complexities of prescription opioid use and the dual risks of inadequate pain control and inappropriate opioid use/misuse. The safe and effective use of prescription opioids requires an understanding of the prevalence, causality, and prevention of serious safety concerns attendant to the use of this important class of drugs.

SCOPE OF THE PROBLEM

Inappropriate prescription opioid analgesia takes several forms: failure to recognize an appropriate indication, inadequate dose titration, excessive opioid dosing, and continued prescription opioid use despite evidence that efficacy is lacking [1]. Appropriate opioid prescribing is essential to achieve pain control; to minimize patient risk of abuse, addiction, and fatal toxicity; and to minimize societal harms from diversion. The foundation of appropriate prescription opioid use encompasses a thorough patient assessment, treatment planning, and follow-up and monitoring. Essential for proper patient assessment and treatment planning is comprehension of the clinical concepts of opioid abuse and addiction, their behavioral manifestations in pain patients, and how these potentially problematic behavioral responses to opioids both resemble and differ from physical dependence and pseudo-dependence. Prescriber knowledge deficit has been identified as a key obstacle to appropriate opioid prescribing and, along with gaps in policy, treatment, attitudes, and research, contributes to widespread inadequate treatment of pain [2].

The extent of current opioid analgesic use (and abuse) in the United States is unprecedented in the country's history and unparalleled anywhere in the world. Before 1990, physicians in the United States were skeptical of prescribing opioids for chronic non-cancer pain; by 2017, 1 in 25 adults was prescribed an opioid such as oxycodone and hydrocodone for chronic pain, and sales of opioid analgesics now total more than $9 billion each year [3]. Between 1992 and 2003, the U.S. population increased 14%, while persons using opioid analgesics increased 94% and first-time non-medical opioid analgesic users 12 to 17 years of age increased 542% [4]. It is interesting to note that while opioid prescribing increased precipitously among adults in the United States from 1996 to 2012, the rate remained low and steady for children over the same period [5].

Worldwide consumption of opioid analgesics has increased dramatically in the past few decades, with the United States driving a substantial proportion of this increase. For example, the 1990 global consumption of hydrocodone was 4 tons (3,628 kg), compared with the 2020 consumption of 31.2 tons (28,304 kg); 99.2% of this was consumed in the United States. Similarly, 3 tons (2,722 kg) of oxycodone were consumed globally in 1990, versus 64.9 tons (58,876 kg) in 2020, of which 44.3 tons (40,188 kg or 68.2%) were consumed in the United States [3; 101]. With only 4.5% of the world's population, the United States annually consumes more than 80% of all opioid supplies, including [4; 101]:

- 99% of all hydrocodone
- 68% of all oxycodone
- 44% of all methadone
- 47% of all hydromorphone
- 18% of all fentanyl

This disproportionate rate of opioid consumption reflects sociocultural and economic factors and standards of clinical medicine.

OPIOID DRUG OVERDOSE

In 2005 and 2011, hydrocodone and its combinations accounted for 51,225 and 97,183 emergency department visits, respectively, in the United States. Oxycodone and its combinations resulted in 42,810 visits to the emergency department in 2005; this number increased to 175,229 visits in 2011 [7; 8]. Visits for nonmedical use of all opioids increased from 217,594 to 420,040 during this six-year period.

Overdose deaths involving prescription opioids are now five times higher than in 2000. From 1999 to 2020, more than 263,000 people died in the United States from overdoses related to prescription opioids [97]. According to the Centers for Disease Control and Prevention (CDC), 91,799 drug overdose deaths were reported in the United States in 2020, of which 68,630 (74.8%) involved prescription or illicit opioids (primarily synthetic opioids such as fentanyl, fentanyl analogs, and tramadol) [91]. Overdose deaths involving just prescription opioids totaled more than 16,000 in 2020, which extrapolates to a 16% increase in prescription opioid-involved death rates from 2019 to 2020.

In 2020, the age-adjusted rate of drug overdose deaths was 28.3 per 100,000 standard population, 31% higher than the rate (21.6) in 2019 [97]. This sharp increase in the rate of overdose deaths was driven largely by overdose and inadvertent poisoning deaths involving synthetic opioids, indicative of a worsening and expanding drug overdose epidemic. From 2019 to 2020, the rate of drug overdose deaths increased for all sex, age, race, and Hispanic-origin groups. The rate of drug overdose deaths involving synthetic opioids (e.g., fentanyl) increased 56% in one year, from 11.4 per 100,000 in 2019 to 17.8 in 2020 [97; 98]. Illicitly manufactured fentanyl and fentanyl analogs are highly potent, increasingly available across the United States, and often found in supplies of other drugs.

PUBLIC HEALTH RESPONSE TO THE OPIOID CRISIS

To assist in monitoring the public health problem associated with prescribed opioids, numerous governmental, nonprofit, and private sector agencies and organizations are involved in collecting, reporting, and analyzing data on the abuse, addiction, fatal overdose, and treatment admissions related to opioid analgesics. In the past decade, federal and state agencies have convened workgroups consisting of subject matter experts, clinicians, and patient representatives to develop clinical practice guidelines for effective and safe opioid prescription drug use.

The CDC Guideline for Prescribing Opioids for Chronic Pain provides recommendations for primary care clinicians who are prescribing opioids for chronic pain outside of active cancer treatment, palliative care, and end-of-life care [10]. The guideline recommendations are grouped in reference to three clinical issues: determining when to initiate or continue opioids for chronic pain; opioid selection, dosage, duration, follow-up, and discontinuation; assessing risk and addressing harms of opioid use. The 2016 CDC guideline for prescribing opioids is in the process of being updated, with an emphasis on improved communication between providers and patients that enables informed, patient-centered decisions for safe and effective pain care.

Additional opioid prescribing guideline resources for healthcare providers, including clinical tools such as total daily opioid dosage calculators, are maintained by the CDC online at https://www.cdc.gov/opioids/providers/prescribing [99].

TENNESSEE AND THE OPIOID CRISIS

In 2011, the state of Tennessee had one of the highest per capita prescription rates for opioids and ranked second in the country for percentage of adult opioid abuse treatment center admissions [92]. According to a 2015 report of opioid abuse in Tennessee, an estimated 212,000 (4.35%) Tennessee adults (18 years of age and older) used pain relievers non-medically in the previous year, the second most prevalent type of drug abuse behind cannabis [93].

From 2014 to 2015, the death rate in Tennessee increased 91% for synthetic opioids (e.g., fentanyl, tramadol), 44% for heroin, and 13% for natural/semisynthetic opioids (e.g., morphine, oxycodone, hydrocodone). The death rate for natural/synthetic opioids was 9.7 per 100,000 population, more than twice the national rate (3.9 per 100,000) [92].

In 2013, the Tennessee legislature, Department of Health, and other agencies came together to address the problem of excessive opioid prescription drug use and the emerging epidemic of drug abuse and overdose. These efforts lead to the creation of a controlled substance database and monitoring program, development of clinical practice guidelines for management of pain and prescription opioid use, and mandated continuing professional education in controlled substance prescribing [94]. There are encouraging signs of progress. From 2016 to 2020, the rate of multiple provider episodes for opioid prescriptions for pain declined from 28.5 per 100,000 residents to 3.5 per 100,000, and opioid prescriptions for pain decreased from 1.98 million dispensed in 2016 to 1.24 million in 2019, representing a decrease of 35.7% [100]. Although deaths from any drug overdose continue to increase (e.g., from 1,776 in 2017 to 2,089 in 2019), overdose deaths from prescription opioids have decreased each year, from a high of 739 in 2016 to 515 deaths in 2019. Reported cases of infants born dependent to drugs with neonatal abstinence syndrome have also declined during this period [94].

Tennessee Department of Health Guidance

In response to the emerging substance abuse epidemic, including a growing number of unintentional drug overdose deaths and an alarming number of infants born dependent on drugs and with signs of neonatal abstinence syndrome, the Tennessee Department of Health has published the Clinical Practice Guidelines for Outpatient Management of Chronic Non-Malignant Pain, last updated in 2020 [94]. In addition to recommendations for pre-treatment evaluation, initiation of prescription opioids, and ongoing opioid therapy for chronic pain, the Tennessee guidelines document includes an Appendix on practical issues relevant to pain management. Among the topics addressed are core competencies for clinician prescribers, mental health assessment tools, women's issues, opioids and pregnancy, risk assessment tools, and prescription drug disposal. Following a review of naloxone usage and potential benefit in reversing the effects of opioid overdosing, a section regarding co-prescribing of naloxone with opioids was added to the 2020 guidelines appendix.

The Tennessee Clinical Practice Guidelines for Management of Chronic Pain is available online at https://www.tn.gov/content/dam/tn/health/healthprofboards/pain-management-clinic/ChronicPainGuidelines.pdf.

PAIN SYNDROMES AND PRESCRIPTION OPIOID USE

ACUTE PAIN

For initial management of common, self-limited acute pain syndromes (e.g., acute low back pain), a multimodal approach is recommended, consisting of nonpharmacologic therapies (e.g., heat, massage, physical therapy), a two- to four-week trial of nonsteroidal anti-inflammatory drugs (NSAIDs), and a trial of a non-benzodiazepine muscle relaxant, if pain persists [94]. If, and when, opioids are prescribed for acute pain, clinicians should select the lowest effective dose of immediate-release opioids in a quantity no greater than that needed for the expected duration of severe pain. In most cases, three days or less will be sufficient; more than seven days will rarely be needed [10; 94]. However, it is important to note that this recommendation is based on emergency department prescribing guidelines for non-traumatic nonsurgical pain [12]. It may be necessary to prescribe for longer periods in patients with acute severe pain.

AFTER SURGERY

Perioperative pain should be managed through a combination of targeted methods that includes management of patient expectation and anxiety, activity and mobilization when appropriate, and a trial of non-opioid pain medication for mild-to-moderate pain and opioid medication for severe pain [94]. Postoperative acute or intermittent pain analgesia often requires frequent titration. A 2- to 4-hour analgesic duration with short-acting hydrocodone, morphine, or oxycodone is more effective than extended-release formulations. Short-acting opioids are also recommended in patients who are medically unstable or with highly variable pain intensity [13; 14; 15].

PALLIATIVE CARE AND PAIN AT THE END OF LIFE

Unrelieved pain is the greatest fear among people with a life-limiting disease, and the need for an increased understanding of effective pain management is well documented [27]. Although experts have noted that 75% to 90% of end-of-life pain can be managed effectively, rates of pain are high, even among people receiving palliative care [27; 28; 29; 30; 31; 32; 33; 34; 35; 36].

The inadequate management of pain is the result of several factors related to both patients and clinicians. In a survey of oncologists, patient reluctance to take opioids or to report pain were two of the most important barriers to effective pain relief [37].

This reluctance is related to a variety of attitudes and beliefs [27; 37]:

- Fear of addiction to opioids
- Worry that if pain is treated early, there will be no options for treatment of future pain
- Anxiety about unpleasant side effects from pain medications
- Fear that increasing pain means that the disease is getting worse
- Desire to be a "good" patient
- Concern about the high cost of medications

Education and open communication are the keys to overcoming these barriers. Every member of the healthcare team should reinforce accurate information about pain management with patients and families. The clinician should initiate conversations about pain management, especially regarding the use of opioids, as few patients will raise the issue themselves or even express their concerns unless they are specifically asked [38]. It is important to acknowledge patients' fears individually and provide information to help them differentiate fact from fiction. For example, when discussing opioids with a patient who fears addiction, the clinician should explain that the risk of addiction is low in the context of opioid use for cancer pain [27]. It is also helpful to note the difference between addiction and physical dependence.

There are several other ways clinicians can allay patients' fears about pain medication:

- Assure patients that the availability of pain relievers cannot be exhausted; there will always be medications if pain becomes more severe.
- Acknowledge that side effects may occur but emphasize that they can be managed promptly and safely and that some side effects will abate over time.
- Explain that pain and severity of disease are not necessarily related.

Encouraging patients to be honest about pain and other symptoms is also vital. Clinicians should ensure that patients understand that pain is multidimensional and emphasize the importance of talking to a member of the healthcare team about possible causes of pain, such as emotional or spiritual distress. The healthcare team and patient should explore psychosocial and cultural factors that may affect self-reporting of pain, such as concern about the cost of medication.

Clinicians' attitudes, beliefs, and experiences also influence cancer pain management, with addiction, tolerance, side effects, and regulations being the most important concerns [27; 34; 37; 39; 40; 41]. A lack of appropriate education and training in the assessment and management of pain has been noted to be a substantial contributor to ineffective pain management [37; 39; 41; 42]. As a result, many clinicians, especially primary care physicians, do not feel confident about their ability to manage pain in their patients [37; 39].

Clinicians require a clear understanding of available medications to relieve pain, including appropriate dosing, safety profiles, and side effects. If necessary, clinicians should consult with pain specialists to develop an effective approach.

Strong opioids are used for severe pain at the end of life [30; 34; 43; 44]. Morphine, buprenorphine, oxycodone, hydromorphone, fentanyl, and methadone are the most widely used in the United States [45]. Unlike non-opioids, opioids do not have a ceiling effect, and the dose can be titrated until pain is relieved or side effects become unmanageable. For an opioid-naïve patient or a patient who has been receiving low doses of a weak opioid, the initial dose should be low, and, if pain persists, the dose may be titrated up daily until pain is controlled.

More than one route of opioid administration will be needed by many patients during end-of-life care, but in general, opioids should be given orally, as this route is the most convenient and least expensive. The transdermal route is preferred to the parenteral route, although dosing with a transdermal patch is less flexible and so may not be appropriate for patients with unstable pain [34]. Intramuscular injections should be avoided because injections are painful, drug absorption is unreliable, and the time to peak concentration is long [34].

CHRONIC NON-MALIGNANT PAIN

The management of chronic pain is among the most prevalent and vexing of clinical issues, a challenge common to physicians and nurses in every clinical discipline of care. As a matter of public health importance, an estimated 116 million adults in the United States suffer from some form of chronic pain [10]. Nonpharmacologic therapy and non-opioid pharmacologic therapy are the preferred first-line therapies for chronic pain. If opioids are used, they should be combined with nonpharmacologic therapy and non-opioid pharmacologic therapy, as appropriate. Clinicians should consider opioid therapy only if expected benefits for pain and function are anticipated to outweigh risks to the patient [10].

Healthcare professionals are obligated to know and apply best practice principles to the use of prescription opioids for management of chronic pain, including knowledge of opioid prescription drug selection and dosage, the associated risks of opioids, approaches to the assessment of pain and function, and appropriate pain management modalities. Pharmacologic and nonpharmacologic approaches should be used on the basis of current knowledge in the evidence base or best clinical practices. Patients with moderate-to-severe chronic pain who have been assessed and treated with an adequate trial of non-opioid therapy or nonpharmacologic pain therapy, without satisfactory pain relief, are considered to be candidates for a trial of opioid therapy [9; 10]. Initial treatment should always be considered individually determined and as a trial of therapy, not a definitive course of treatment [11].

CREATING A TREATMENT PLAN AND ASSESSMENT OF ADDICTION RISK

PRIOR TO INITIATING OPIOID THERAPY

The Tennessee Chronic Pain Guidelines enumerate several key principles to follow when initiating opioid therapy [94]. Practitioners should bear in mind that prior opioid therapy alone is not sufficient reason to continue opioids, and reasonable non-opioid treatments should be tried first. When prescription opioids are considered for women of childbearing age, providers should educate the patient about the risks of opioid use during pregnancy, including the risk of physical dependence and withdrawal in the newborn; upon initiation of opioid therapy, the provider should recommend reliable contraception. A urine drug test (UDT) should be performed before initiating any opioid or benzodiazepine during pregnancy [94]. A thorough clinical examination, including appropriate laboratory testing and other elements supporting the plan of care, should be documented in the medical record. Patients shall not be treated by the use of controlled substances through telemedicine.

Before deciding to prescribe an opioid analgesic, clinicians should perform and document a detailed patient assessment that includes [1; 94]:

- History of the patient's pain condition and indications for opioid therapy
- Nature and intensity of pain
- Past and current pain treatments and patient response
- Important comorbid conditions such as COPD, sleep apnea, diabetes, or congestive heart failure
- Pain impact on physical and psychologic function
- Social support, housing, and employment
- Home environment (i.e., stressful or supportive)

- Pain impact on sleep, mood, work, relationships, leisure, and substance use
- Patient history of physical, emotional, or sexual abuse
- The possibility of pregnancy, initially and on each subsequent visit

The initial evaluation is intended to establish a current diagnosis that justifies the need for opioid medication. After this determination is made, it is important to assess the patient's risk for drug misuse and develop and document a treatment plan, including a discussion of treatment goals.

EVIDENCE-BASED PRACTICE RECOMMENDATION

According to the American Society of Interventional Pain Physicians, before starting opioid therapy, clinicians must take certain basic steps to prevent opioid abuse: distinguish individual opioid abuse risk factors; screen patients' potential for addiction and abuse during their initial visit; categorize patients in accordance with their level of risk and implement an appropriate level of monitoring; and refrain from judgments before a thorough assessment. Combining the above strategies with point-of-care urine drug testing as a confirmatory tool have been shown to contribute significantly to the identification of inconsistencies.

(https://www.painphysicianjournal.com/current/pdf?article=NDIwNA%3D%3D&journal=103. Last accessed September 21, 2022.)

Level of Evidence: Expert Opinion/Consensus Statement

Opioid Misuse Risk Assessment

Information obtained by patient history, physical examination, and interview, from family members, a spouse, or state Controlled Substance Monitoring Database (CSMD), and from the use of screening and assessment tools can help the clinician to stratify the patient according to level of risk for developing problematic opioid behavioral responses (***Table 1***). A UDT should be performed prior to initiating opioid treatment.

Low-risk patients receive the standard level of monitoring, vigilance, and care. Moderate-risk patients should be considered for an additional level of monitoring and provider contact, and high-risk patients are likely to require intensive and structured monitoring and follow-up contact, additional consultation with psychiatric and addiction medicine specialists, and limited supplies of short-acting opioid formulations [10; 26].

If substance abuse is active, in remission, or in the patient's history, one should consult an addiction specialist before starting opioids [1]. In the setting of active substance abuse, opioids should not be prescribed until the patient is engaged in a treatment/recovery program or other arrangement is made, such as addiction professional co-management and additional monitoring. When considering an opioid analgesic (particularly those that are extended-release or long-acting), it is important to weigh the benefits against potential risks, such as overdose, misuse, physical dependence, adverse drug interactions, and accidental exposure by children [10; 16].

Screening and assessment tools can help guide patient stratification according to risk level and inform the appropriate degree of structure and monitoring in the treatment plan. It should be noted that despite widespread endorsement of screening tool use to help determine patient risk level, most tools have not been extensively evaluated, validated, or compared to each other [17]. Information on some of the more commonly used risk assessment tools is provided in the following sections.

Opioid Risk Tool (ORT)

The Opioid Risk Tool (ORT) is a brief, 10-item written questionnaire completed by the patient, designed to elicit personal and family history of psychiatric illness and prior drug/alcohol abuse. The assessment is used to predict likelihood for aberrant drug-related behavior and classify patients as low-, medium-, or high-risk [18].

RISK STRATIFICATION FOR PATIENTS PRESCRIBED OPIOIDS
Low Risk
Definable physical pathology with objective signs and reliable symptoms
Clinical correlation with diagnostic testing, including MRI, physical examination, and interventional diagnostic techniques
With or without mild psychologic comorbidity
With or without minor medical comorbidity
No or well-defined and controlled personal or family history of alcoholism or substance abuse
Age 45 years or older
High levels of pain acceptance and active coping strategies
High motivation and willingness to participate in multimodal therapy and attempting to function at normal levels
Medium Risk
Significant pain problems with objective signs and symptoms confirmed by radiologic evaluation, physical examination, or diagnostic interventions
Moderate psychologic problems, well controlled by therapy
Moderate coexisting medical disorders that are well controlled by medical therapy and are not affected by chronic opioid therapy (e.g., central sleep apnea)
Develops mild tolerance but not hyperalgesia without physical dependence or addiction
Past history of personal or family history of alcoholism or substance abuse
Pain involving more than three regions of the body
Defined pathology with moderate levels of pain acceptance and coping strategies
Willing to participate in multimodal therapy, attempting to function in normal daily life
High Risk
Widespread pain without objective signs and symptoms
Pain involving more than three regions of the body
Aberrant drug-related behavior
History of alcoholism or drug misuse, abuse, addiction, diversion, dependency, tolerance, or hyperalgesia
Major psychologic disorders
Age younger than 45 years
HIV-related pain
High levels of pain exacerbation and low levels of coping strategies
Unwilling to participate in multimodal therapy, not functioning close to a near normal lifestyle
HIV = human immunodeficiency syndrome, MRI = magnetic resonance imaging.
Source: [17] *Table 1*

Screener and Opioid Assessment for Patients with Pain-Revised (SOAPP-R)

The Screener and Opioid Assessment for Patients with Pain-Revised (SOAPP-R) is a 24-item, patient-administered questionnaire that assesses history of alcohol/substance use, psychologic status, mood, impulsivity, cravings, and stress. It uses a five-point rating scale for each response and classifies patients as low or high risk in relation to potential aberrant drug-related behaviors and the appropriate extent of monitoring [19].

CAGE and CAGE-AID

The original CAGE (Cut down, Annoyed, Guilty, and Eye-opener) Questionnaire consisted of four questions designed to help clinicians determine the likelihood that a patient was misusing or abusing alcohol. These same four questions were modified to create the CAGE-AID (adapted to include drugs), revised to assess the likelihood of current substance abuse [20].

Diagnosis, Intractability, Risk, and Efficacy (DIRE) Tool

The Diagnosis, Intractability, Risk, and Efficacy (DIRE) risk assessment tool is a clinician/interviewer-derived rating scale based on the patient's history, diagnosis, personal engagement in care, and psychiatric issues. The numerical score is used to predict patient compliance with long-term opioid therapy, and patients are classified as "not a suitable candidate" or "good candidate" for long-term opioid analgesia [21].

Mental Health Screening Tool

The Mental Health Screening Tool is a five-item screen that asks about a patient's feelings of happiness, calmness, peacefulness, nervousness, and depression in the past month [22]. A lower score on this tool is an indicator that the patient should be referred to a specialist for pain management.

The Tennessee Controlled Substance Monitoring Database

The Tennessee CSMD is a prescription-monitoring program designed to provide healthcare practitioners with a cumulative record of a patient's prior controlled substance prescription history [94]. Information sent to, contained in, and reported from the database is confidential and password-protected. The data are available to a prescriber or dispenser (pharmacist) of a controlled substance to the extent the information relates to a current or bona fide prospective patient. The CSMD contains prescription information from all dispensers of controlled substances in Tennessee and also those dispensers who ship to patients residing in Tennessee, including from mail-order pharmacies and some Veterans Affairs pharmacies [94]. The information that is required to be submitted includes prescriber U.S. Drug Enforcement Administration (DEA) number, patient identifier, dispensing date, controlled substance national drug code number, quantity dispensed, strength, estimated day supply, and dispenser DEA number. All data in the CSMD are reported as submitted to the data collection website by the dispenser. Therefore, if there are any questions about the data, a practitioner should contact the dispenser identified in the report.

All prescribers and dispensers of controlled substances in Tennessee must register for access to the CSMD [94]. Healthcare practitioners wishing to register with the CSMD to access prescription information are required to register at https://www.tncsmd.com. A prompt will appear requesting information used to validate the provider's statutory authority to access CSMD data. A detailed discussion of the CSMD, including access, patient report content, and prescriber self-lookup reports, is available in the Tennessee Chronic Pain Guidelines [94].

Providers who prescribe opioids should review the patient's history of controlled substance prescriptions using the Tennessee CSMD data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at risk for overdose [10; 94]. This review should be performed when starting opioid treatment for chronic pain and periodically during the course of therapy.

INFORMED CONSENT AND TREATMENT AGREEMENTS

The initial opioid prescription is preceded by a written informed consent or "treatment agreement" [1]. This agreement should address the rationale for and appropriate use of a controlled medication and the mechanism of action, expected benefit, and limitations of therapy. It should also provide information regarding potential negative effects of controlled medication, including side effects, tolerance and/or physical dependence, drug interactions, motor skill impairment, limited evidence of long-term benefit, misuse, addiction, and drug diversion. Informed consent documents should include information

regarding the risk/benefit profile for the drug(s) being prescribed and common-sense rules for using controlled medications safely. The prescribing policies should be clearly delineated, including the number/frequency of refills, early refills, and procedures for lost or stolen medications.

The treatment agreement also outlines joint physician and patient responsibilities. The prescriber's responsibility is to address unforeseen problems and prescribe scheduled refills. The patient agrees to using medications safely, refraining from "doctor shopping," and consenting to routine UDTs. Included is the expectation that a patient will inform the provider if she wishes to avoid unintended pregnancy and if she becomes pregnant. The Tennessee practice guidelines recommend that the practitioner obtain a signature indicating that any woman who wishes to become or is at risk to become pregnant has been educated about the risks and benefits of opioid treatment during her pregnancy [94]. When there is a change or discontinuation of opioid treatment, the reasons should be documented. Agreements may also include sections related to follow-up visits, monitoring, and safe storage and disposal of unused drugs.

The Tennessee Department of Health provides a sample Informed Consent/Controlled Substance Agreement and Patient Agreement/Treatment Attestation form in the Appendix of the Chronic Pain Management Guidelines [94].

THE TREATMENT PLAN AND INITIATING OPIOID THERAPY

Opioid therapy for chronic pain should be presented as a trial for a pre-defined period (e.g., ≤30 days). The goals of treatment should be established with all patients prior to the initiation of opioid therapy, including reasonable improvements in pain, function, depression, anxiety, and avoidance of unnecessary or excessive medication use [1; 10]. It should be emphasized to the patient that the primary goal is to improve function and reduce pain, not necessarily to eliminate pain entirely. The treatment plan should describe therapy selected, progress measures, and other diagnostic evaluations, consultations, and therapies. The plan should establish realistic goals that can be assessed on follow-up. A commonly used assessment tool is the three-item PEG assessment scale [94]:

- **P**ain average
- Interference with **E**njoyment of life
- Interference with **G**eneral activity

In opioid-naïve patients, one should start at the lowest possible dose and titrate to effect. Dosages for opioid-tolerant patients should always be individualized and titrated by efficacy and tolerability [1; 10]. When initiating opioid therapy for chronic pain, clinicians should select an immediate-release, short-acting opioid instead of an extended-release/long-acting opioid formulation [10; 94]. Additional principles, emphasized by the Tennessee Practice Guidelines, include [94]:

- Any product containing buprenorphine, whether with or without naloxone, may only be prescribed for a use recognized by the FDA.
- Benzodiazepines should be generally avoided in combination with chronic opioid therapy. When the opioid dose reaches 120 mg morphine equivalent dose (MED) and the benzodiazepines are being used for mental health purposes, the provider shall refer to a mental health professional to assess the necessity of benzodiazepine medication.
- Buprenorphine/naloxone combinations shall be avoided for the treatment of chronic pain.
- The use of methadone should be reserved for the treatment of addiction. However, methadone may be used by a pain specialist for treatment of pain after considering all available options.
- Whenever treatment deviates from recommended guidelines, the reason should be documented in the medical record.

The need for frequent progress and benefit/risk assessments during the trial should be included in patient education. Patients should also have full knowledge of the warning signs and symptoms of respiratory depression. The risk of overdose deaths starts at 40 mg MED per day in opioid-naïve patients, and the highest risk is in the first two weeks of therapy [94]. Prescribers should carefully reassess evidence of benefits and risks when increasing the dosage to ≥ 50 mg MED per day. Decisions to titrate dose to ≥ 90 mg MED per day should be avoided or carefully justified [10].

CONCURRENT USE OF BENZODIAZEPINES AND OTHER CONTROLLED SUBSTANCES

Benzodiazepines

In 2018, 33% of persons who died of an opioid overdose also tested positive for benzodiazepines, a class of sedative medication commonly prescribed for anxiety, insomnia, panic attack, and muscle spasm [95]. Benzodiazepines work by raising the level of the neurotransmitter GABA in the brain. Common formulations include diazepam (Valium), alprazolam (Xanex), and clonazepam (Klonopin). Combining benzodiazepines with opioids is unsafe because both classes of drug cause central nervous system (CNS) depression, sedation, and can decrease respiratory drive—the usual cause of overdose fatality. Both classes have the potential for drug dependence and addiction.

Both the CDC and the Tennessee Department of Health recommend that healthcare providers avoid prescribing benzodiazepines concurrently with opioids whenever possible [10; 94]. If a benzodiazepine is to be discontinued, the clinician should taper the medication gradually, because abrupt withdrawal can lead to rebound anxiety and complications such as hallucinations, seizures, delirium tremens, and, in rare instances, death. A commonly used tapering schedule is a reduction of the benzodiazepine dose by 25% every one to two weeks [10]. The Tennessee Sample Informed Consent/Controlled Substance Agreement includes patient education on benzodiazepine activity, side effects, potential for physical dependency, and withdrawal symptoms [94].

Carisoprodol

Barbiturates, muscle relaxants, and hypnotics also have sedative side effects that can potentiate respiratory depression in patients taking opioids. Providers should consider whether benefits outweigh risks of concurrent use of these drugs before prescribing opioids. Of particular concern is carisoprodol (Soma), a noncontrolled, central-acting skeletal muscle relaxant whose active metabolite is meprobamate, with which it shares significant sedative effects and abuse potential [96]. Clinicians should check the Tennessee CSMD for concurrently prescribed controlled medications and should consider consultation with pharmacists and pain specialists as part of the management plan when opioids are co-prescribed with other CNS depressants [10].

CO-PRESCRIBING NALOXONE

According to CDC data for 2020, there were 91,799 deaths due to drug overdose nationwide, of which 68,630 resulted from a poisoning or overdose involving opioids, including more than 13,000 deaths involving a prescription opioid.

Naloxone is a prescription opioid antagonist approved by the FDA for use in reversing the effects of an overdose involving opioids. The medication works by blocking opioid receptors to reverse suppression of respiratory drive caused by excessive opioid effect. Naloxone is available in multiple dosage and routes of administration, which include intramuscular, intravenous, and intranasal formulations [94].

In the outpatient setting, patients may be at risk for an overdose because of factors related to opioid dosage and usage, or because of pre-existing conditions that can negatively impact tolerance to opioids. Among patients to consider at risk are those who [94]:

- Are taking greater than 50 morphine milligram equivalents per day
- Are taking benzodiazepines
- Reportedly use or have used heroin, illicit synthetic opioids, or misuse prescription opioids, or have a non-opioid substance use disorder or excessive alcohol use
- Have a prior history of overdose
- Have a respiratory condition (e.g., COPD, sleep apnea)
- Have children or other dependents at home who have access to medication
- Will have difficulty accessing emergency medical care while on prescription opioid

The Tennessee Chronic Pain Guidelines recommend that clinicians should incorporate into the management plan strategies to mitigate risk, including the offer of naloxone for use by patients (or family members) when factors that increase the risk for opioid overdose are present [94]. The best way to ensure access to naloxone is to simultaneously prescribe the medication at the same time a prescription for an opioid is written. It is recommended that prescribers provide a prescription for naloxone hydrochloride or another drug approved by the FDA for the complete or partial reversal of an opioid event to a patient at risk. A licensed healthcare practitioner in Tennessee may prescribe naloxone for a patient, when acting in good faith and exercising reasonable care, both with an opioid prescription or at any time following the prescription of an opioid [94].

Healthcare Provider Education

Clinical care providers who prescribe naloxone are expected to be well-informed and to use reasonable care, including receipt of training regarding how to administer naloxone. This can be achieved through completion of the online overdose prevention education program offered by the Tennessee Department of Health. More information on naloxone training for healthcare professionals is available at https://www.tn.gov/health/health-program-areas/health-professional-boards/csmd-board/csmd-board/naloxone-training-information.html.

Patient Education

Patients may receive naloxone from a dispensing licensed pharmacist educated on the proper use of naloxone and authorized in accordance with the State Collaborative Pharmacy Practice Agreement between a pharmacist and a prescriber [94]. The pharmacist is expected to educate and train the patient or caregiver in the proper use of naloxone and should do so "face-to-face" if the patient or caregiver are present. Training on administration of naloxone for the general public can be found at https://www.tn.gov/health/health-program-areas/health-professional-boards/csmd-board/csmd-board/naloxone-training-information.html. The CDC also offers naloxone training as a full module (one hour) or as separate mini-modules of shorter duration. This resource is available at https://www.cdc.gov/opioids/naloxone/training.

ONGOING OPIOID TREATMENT AND MONITORING

When the decision is made to continue opioid treatment for chronic pain, care providers should regularly assess clinical progress and monitor the patient for signs of drug abuse, misuse, or diversion. The Tennessee practice guidelines emphasize that a single provider should handle all chronic opioid therapy and all prescriptions should be filled by a single pharmacy. Opioids should be used at the lowest effective dose. A provider should not use more

than one short-acting opioid concurrently. Patients who require opioid doses of 120 mg MED or greater should be referred to a pain specialist for consultation and/or management. An unannounced UDT should be done twice every year, at a minimum [94].

Prescribers should be knowledgeable of federal and state opioid prescribing regulations. Issues of equianalgesic dosing, close patient monitoring during all dosage changes, and cross-tolerance with opioid conversion should be considered. If necessary, treatment may be augmented, with preference for non-opioid and immediate-release opioids over long-acting/extended-release opioids. A protocol for tapering the opioid should be implemented when the drug is no longer needed [16].

Clinical follow-up at regular intervals should include reassessment for changes in pain character and intensity, general health, and function [1]. This can include input from family members and/or the CSMD. During the initiation phase and following any changes to the dosage or agent used, patient contact should be increased. At every visit, the clinical response to therapy should be discussed and documented in the medical record, in reference to the "5 A's" [1; 23; 94]:

- Analgesia
- Activities of daily living
- Adverse or side effects
- Aberrant drug-related behaviors
- Affect (i.e., patient mood)

Signs and symptoms that, if present, may suggest a problematic response to the opioid and interference with the goal of functional improvement include [24]:

- Excessive sleeping or days and nights turned around
- Diminished appetite
- Short attention span or inability to concentrate
- Mood volatility, especially irritability
- Lack of involvement with others
- Impaired functioning due to drug effects
- Use of the opioid to regress instead of re-engaging in life
- Lack of attention to hygiene and appearance

The decision to continue, change, or terminate opioid therapy is based on progress toward treatment objectives and absence of adverse effects and risks of overdose or diversion [1]. Satisfactory therapy is indicated by improvements in pain, function, and quality of life. Brief assessment tools to assess pain and function may be useful, as may UDTs. Treatment plans may include periodic pill counts to confirm adherence and minimize diversion.

Involvement of Family

Family members of the patient can provide the clinician with valuable information that better informs decisions regarding continuing opioid therapy. Family members can observe whether a patient is losing control of his or her life or becoming less functional or more depressed during the course of opioid therapy. They can also provide input regarding positive or negative changes in patient function, attitude, and level of comfort. The following questions can be asked of family members or a spouse to help clarify whether the patient's response to opioid therapy is favorable or unfavorable [24]:

- Is the person's day centered around taking the opioid medication? Response can help clarify long-term risks and benefits of the medication and identify other treatment options.
- Does the person take pain medication only on occasion, perhaps three or four times per week? If yes, the likelihood of addiction is low.
- Have there been any other substance (alcohol or drug) abuse problems in the person's life? An affirmative response should be taken into consideration when prescribing.

- Does the person in pain spend most of the day resting, avoiding activity, or feeling depressed? If so, this suggests the pain medication is failing to promote rehabilitation. Daily activity is essential, and the patient may be considered for enrollment in a graduated exercise program.
- Is the person in pain able to function (e.g., work, do household chores, play) with pain medication in a way that is clearly better than without? If yes, this suggests the pain medication is contributing to wellness.

Assessment Tools

VIGIL

VIGIL is the acronym for a five-step risk management strategy designed to empower clinicians to appropriately prescribe opioids for pain by reducing regulatory concerns and to give pharmacists a framework for resolving ambiguous opioid analgesic prescriptions in a manner that preserves legitimate patient need while potentially deterring diverters. The components of VIGIL are:

- Verification: Is this a responsible opioid user?
- Identification: Is the identity of this patient verifiable?
- Generalization: Do we agree on mutual responsibilities and expectations?
- Interpretation: Do I feel comfortable allowing this person to have controlled substances?
- Legalization: Am I acting legally and responsibly?

The foundation of VIGIL is a collaborative physician/pharmacist relationship [25].

Current Opioid Misuse Measure (COMM)

The Current Opioid Misuse Measure (COMM) is a 17-item patient self-report assessment designed to help clinicians identify misuse or abuse in chronic pain patients. Unlike the ORT and the SOAPP-R, the COMM identifies aberrant behaviors associated with opioid misuse in patients already receiving long-term opioid therapy [26]. Sample questions include: In the past 30 days, how often have you had to take more of your medication than prescribed? In the past 30 days, how much of your time was spent thinking about opioid medications (e.g., having enough, taking them, dosing schedule)?

Pain Assessment and Documentation Tool (PADT)

Guidelines by the CDC, the Federation of State Medical Boards (FSMB), and the Joint Commission stress the importance of documentation from both a healthcare quality and medicolegal perspective. Research has found widespread deficits in chart notes and progress documentation with chronic pain patients receiving opioid therapy, and the Pain Assessment and Documentation Tool (PADT) was designed to address these shortcomings [46]. The PADT is a clinician-directed interview, with most sections (e.g., analgesia, activities of daily living, adverse events) consisting of questions asked of the patient. However, the potential aberrant drug-related behavior section must be completed by the physician based on his or her observations of the patient.

The Brief Intervention Tool

The Brief Intervention Tool is a 26-item, "yes-no," patient-administered questionnaire used to identify early signs of opioid abuse or addiction. The items assess the extent of problems related to drug use in several areas, including drug use-related functional impairment [22].

PATIENT RISK LEVEL AND FREQUENCY OF MONITORING			
Monitoring Tool	**Patient Risk Level**		
	Low	**Medium**	**High**
Urine drug test	Every 1 to 2 years	Every 6 to 12 months	Every 3 to 6 months
State prescription drug monitoring program	Twice per year	Three times per year	Four times per year

Source: [47] *Table 2*

Urine Drug Tests

Drug testing of patients receiving chronic opioid therapy is recommended by many pain medicine societies and government agencies [94]. UDTs may be used to monitor adherence to the prescribed treatment plan and to detect the use of unsanctioned or illicit substances. Testing should target not only the prescribed opioid but also other common drugs of abuse. In one study, unexpected positive UDT results were seen in 45% of patients enrolled in a pain management program at an urban teaching hospital [94]. The reported prevalence of illicit drugs identified in the course of routine UDT in pain management programs ranges between 10.9% and 24% [94].

The most commonly used method for initial UDT screening is the class-specific immunoassay (IA). The IA is a qualitative test that detects the presence or absence of a drug class; it can be employed on site in clinic and hospital laboratories and provides rapid results that facilitate early management decisions [1]. However, IA has limited sensitivity and the specificity is compromised by frequent cross-reactivity with other substances, leading to false-positive results [94]. When the screening IA is positive, definitive or confirmatory testing is required, usually by gas chromatography/mass spectrometry, for detection of the specific drug or metabolite. It is important that testing identifies the specific drug, rather than merely the drug class, and the prescribed opioid should be included in the testing protocol.

The frequency of drug testing is a matter of clinical provider judgment based on individual case considerations and patient risk assessment (***Table 2***). In general, the CDC and the Tennessee practice guidelines recommend confirmation testing prior to initiating chronic opioid therapy and at least twice per year for all patients maintained on opioid treatment [10; 94]. Patients at moderate or higher risk should be tested three to four times per year. Aberrant behavior or unexpected UDT results should prompt additional screening. The Tennessee guidelines provide a detailed discussion of UDT, including causes for false-positive and false-negative results and guidance for interpretation of results [94].

Urine test results suggesting opioid misuse should be discussed with the patient using a positive, supportive approach. The test results and the patient discussion should be documented.

CONSULTATION AND REFERRAL

Successful pain management or mitigation of problems that arise often require consultation or patient referral to a pain, addiction, or mental health specialist. Clinicians who prescribe opioids should become familiar with opioid addiction treatment options (including licensed opioid treatment programs for methadone and buprenorphine) if referral is needed [1].

Ideally, providers should be able to refer patients with active substance abuse who require prescription pain treatment to an addiction professional or specialized program. In reality, these specialized resources are scarce or non-existent in many areas [1]. Therefore, each provider will need to decide whether the risks of continuing opioid treatment for a patient using illicit drugs outweigh the benefits in terms of pain control and improved function [48].

MEDICAL RECORDS

As noted, documentation is a necessary aspect of all patient care, but it is of particular importance when opioid prescribing is involved. All clinicians should maintain accurate, complete, and up-to-date medical records, including all written or telephoned prescription orders for opioid analgesics and other controlled substances, all written instructions to the patient for medication use, and the name, telephone number, and address of the patient's pharmacy [1]. Good medical records demonstrate that a service was provided to the patient and that the service was medically necessary. Regardless of the treatment outcome, thorough medical records protect the prescriber.

PATIENT EDUCATION ON THE USE AND DISPOSAL OF OPIOIDS

Patients and caregivers should be counseled regarding the safe use and disposal of opioids. As part of its mandatory Risk Evaluation and Mitigation Strategy (REMS) for extended-release/long-acting opioids, the U.S. Food and Drug Administration (FDA) has developed a patient counseling document with information on the patient's specific medications, instructions for emergency situations and incomplete pain control, and warnings not to share medications or take them unprescribed [16]. A copy of this form may be accessed online at https://www.fda.gov/media/86281/download.

When prescribing opioids, clinicians should provide patients with the following information [16]:

- Product-specific information
- Taking the opioid as prescribed
- Importance of dosing regimen adherence, managing missed doses, and prescriber contact if pain is not controlled
- Warning and rationale to never break or chew/crush tablets or cut or tear patches prior to use
- Warning and rationale to avoid other CNS depressants, such as sedative-hypnotics, anxiolytics, alcohol, or illicit drugs
- Warning not to abruptly halt or reduce the opioid without physician oversight of safe tapering when discontinuing
- The potential of serious side effects or death
- Risk factors, signs, and symptoms of overdose and opioid-induced respiratory depression, gastrointestinal obstruction, and allergic reactions
- The risks of falls, using heavy machinery, and driving
- Warning and rationale to never share an opioid analgesic
- Rationale for secure opioid storage
- Warning to protect opioids from theft
- Instructions for disposal of unneeded opioids, based on product-specific disposal information

There are no universal recommendations for the proper disposal of unused opioids, and patients are rarely advised of what to do with unused or expired medications [49]. According to the Office of National Drug Control Policy, most medications that are no longer necessary or have expired should be removed from their containers, mixed with undesirable substances (e.g., cat litter, used coffee grounds), and put into an impermeable,

nondescript container (e.g., disposable container with a lid or a sealed bag) before throwing in the trash [50]. Any personal information should be obscured or destroyed. The FDA recommends that certain medications such as oxycodone/acetaminophen (Percocet), oxycodone (OxyContin tablets), and transdermal fentanyl (Duragesic Transdermal System), may be flushed down the toilet instead of thrown in the trash [50]. Patients should be advised to flush prescription drugs down the toilet only if the label or accompanying patient information specifically instructs doing so.

The American College of Preventive Medicine has published best practice recommendations designed to avoid diversion of unused drugs and educate patients regarding drug disposal [49]:

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

The state of Tennessee has developed two types of disposal activities designed to control access and promote safe, convenient, and responsible disposal of prescription drugs [94]. The first is a system of permanent prescription drug collection boxes located within law enforcement agencies (in compliance with DEA regulations) where community members can safely deposit drugs in a secure manner. The goal is to establish at least one permanent prescription drug collection box in all 95 counties of the state. The second activity involves community one-day "take-back" events wherein the public is encouraged to discard unwanted and outdated medications including prescription drugs from their homes. These events serve to raise public awareness of the prescription drug epidemic and encourage the use of local permanent disposal sites available year-round. A map showing the locations of permanent drug collection boxes can be found online at https://tdeconline.tn.gov/rxtakeback.

DISCONTINUING OPIOID THERAPY

The decision to modify or terminate prescription opioid use is based on clinical progress and a physician-patient discussion of the realized benefits or adverse effects. Among the reasons to taper or discontinue an opioid regimen are resolution of the condition causing pain, intolerable side effects, inadequate analgesia, lack of improvement in quality of life despite dose titration, deteriorating function, and significant aberrant medication use [1; 10].

The decision to discontinue opioids carries the potential risk for troublesome withdrawal symptoms. Common symptoms of opioid withdrawal syndrome include nausea, vomiting, headache, abdominal pain, myalgia, and sweating. Although discomforting, the syndrome is usually not fatal, unlike benzodiazepine withdrawal. While low-dose and brief duration opioid regimens may not require weaning of the dosage, clinicians should always consider the need for a safely structured tapering protocol. Withdrawal may be managed by the prescribing physician or by referral to a pain or addiction specialist.

The Tennessee Department of Health suggestions for a tapering protocol are [94]:

- Upon decision to discontinue opioids, the prescribing physician has the responsibility to address the issue and take steps to minimize the impact of opioid withdrawal syndrome.
- There are several different weaning protocols from various sources. A conservative approach recommends a 10% reduction in the original dose per week. Another is to reduce the dose by 25% every four days.
  The more rapid tapering protocols call for a daily 25% to 50% reduction off the previous day's dose. (The Tennessee Department of Health does not recommend any one specific protocol.)
- Among the several medications that are available for symptomatic relief, clonidine is effective in alleviating some symptoms of withdrawal syndrome. Clonidine can be administered 0.1–0.2 mg orally every six hours or with a transdermal patch at 0.1 mg/24 hours. Hypotension and anticholinergic side effects may be encountered.
- Weaning opioids is not always indicated when they are to be discontinued. If recent UDT has shown that opioids are not present in the patient's system, then a weaning protocol would not be necessary.
- If drug diversion is suspected, then prescribing additional opioids is not indicated. In any circumstance in which prescribing additional opioids to a patient is thought to constitute more risk to the patient or to the community than the potential for withdrawal syndrome, no additional opioids should be prescribed.

Patients should be reassured that opioid discontinuation is not the end of treatment; continuation of pain management will be undertaken with other modalities through direct care or referral.

As a side note, cannabis use by chronic pain patients receiving opioid therapy has traditionally been viewed as a treatment agreement violation that is grounds for termination of opioid therapy. However, some now argue against cannabis use as a rationale for termination or substantial treatment and monitoring changes, especially considering the increasing legalization of medical use at the state level [48].

CONSIDERATIONS FOR NON-ENGLISH-PROFICIENT PATIENTS

For patients who are not proficient in English, it is important that information regarding the risks associated with the use of opioids and available resources be provided in their native language, if possible. When there is an obvious disconnect in the communication process between the practitioner and patient due to the patient's lack of proficiency in the English language, an interpreter is required. Interpreters can be a valuable resource to help bridge the communication and cultural gap between patients and practitioners. Interpreters are more than passive agents who translate and transmit information back and forth from party to party. When they are enlisted and treated as part of the interdisciplinary clinical team, they serve as cultural brokers who ultimately enhance the clinical encounter. In any case in which information regarding treatment options and medication/treatment measures are being provided, the use of an interpreter should be considered. Print materials are also available in many languages, and these should be offered whenever necessary.

IDENTIFICATION OF DRUG DIVERSION/SEEKING BEHAVIORS

Research has more closely defined the location of prescribed opioid diversion into illicit use in the supply chain from the manufacturer to the distributor, retailer, and the end user (the pain patient). This information carries with it substantial public policy and regulatory implications. The 2015 National Survey on Drug Use and Health asked non-medical users of prescription opioids how they obtained their most recently used drugs [51]. Among persons 12 years of age or older, 40.5% obtained their prescription opioids from a friend or relative for free, 34.0% got them through a prescription from one doctor (vs. 17.3% in 2009 – 2010), 9.4% bought them from a friend or relative, and 3.8% took them from a friend or relative without asking [51]. Less frequent sources included a drug dealer or other stranger (4.9%); multiple doctors (1.7%); and theft from a doctor's office, clinic, hospital, or pharmacy (0.7%) (vs. 0.2% in 2009 – 2010) [51].

As discussed, UDTs can give insight into patients who are misusing opioids. A random sample of UDT results from 800 pain patients treated at a Veterans Affairs facility found that 25.2% were negative for the prescribed opioid while 19.5% were positive for an illicit drug/unreported opioid [52]. Negative UDT results for the prescribed opioid do not necessarily indicate diversion, but may indicate the patient halted his/her use due to side effects, lack of efficacy, or pain remission. The concern arises over the increasingly stringent climate surrounding clinical decision-making regarding aberrant UDT results and that a negative result for the prescribed opioid or a positive UDT may serve as the pretense to terminate a patient rather than guide him/her into addiction treatment or an alternative pain management program [53].

In addition to aberrant urine screens, there are certain behaviors that are suggestive of an emerging opioid use disorder. The most suggestive behaviors are [48; 54; 55]:

- Selling medications
- Prescription forgery or alteration
- Injecting medications meant for oral use
- Obtaining medications from nonmedical sources
- Resisting medication change despite worsening function or significant negative effects
- Loss of control over alcohol use
- Using illegal drugs or non-prescribed controlled substances
- Recurrent episodes of:
  - Prescription loss or theft
  - Obtaining opioids from other providers in violation of a treatment agreement
  - Unsanctioned dose escalation
  - Running out of medication and requesting early refills

Behaviors with a lower level of evidence for their association with opioid misuse include [48; 54; 55]:

- Aggressive demands for more drug
- Asking for specific medications
- Stockpiling medications during times when pain is less severe
- Using pain medications to treat other symptoms
- Reluctance to decrease opioid dosing once stable
- In the earlier stages of treatment:
  - Increasing medication dosing without provider permission
  - Obtaining prescriptions from sources other than the pain provider
  - Sharing or borrowing similar medications from friends/family

INTERVENTIONS FOR SUSPECTED OR KNOWN ADDICTION OR DRUG DIVERSION

There are a number of actions that prescribers and dispensers can take to prevent or intervene in cases of drug diversion. These actions can be generally categorized based on the various mechanisms of drug diversion.

Prevention is the best approach to addressing drug diversion. As noted, the most common source of nonmedical use of prescribed opioids is from a family member or friend, through sharing, buying, or stealing. To avoid drug sharing among patients, healthcare professionals should educate patients on the dangers of sharing opioids and stress that "doing prescription drugs" is the same as "using street drugs" [49]. In addition, patients should be aware of the many options available to treat chronic pain aside from opioids. To prevent theft, patients should be advised to keep medications in a private place and to refrain from telling others about the medications being used.

Communication among providers and pharmacies can help to avoid inappropriate attainment of prescription drugs through "doctor shopping." Prescribers should keep complete and up-to-date records for all controlled substance prescribing. When possible, electronic medical records should be integrated between pharmacies, hospitals, and managed care organizations [49]. If available, it is also best practice to periodically request a report from the state's prescription reporting program to evaluate the prescribing of opioids to your patients by other providers [49].

When dealing with patients suspected of drug seeking/diversion, first inquire about prescription, over-the-counter, and illicit drug use and perform a thorough examination [49; 56]. Pill counting and/or UDT may be necessary to investigate possible drug misuse. Photo identification or other form of identification and social security number may be required prior to dispensing the drug, with proof of identity documented fully. If a patient is displaying suspicious behaviors, consider prescribing for limited quantities [56].

If a patient is found to be abusing prescribed opioids, this is considered a violation of the treatment agreement and the clinician must make the decision whether or not to continue the therapeutic relationship. If the relationship is terminated, it must be done ethically and legally. The most significant issue is the risk of patient abandonment, which is defined as ending a relationship with a patient without consideration of continuity of care and without providing notice to the patient. The American Medical Association Code of Ethics states that physicians have an obligation to support continuity of care for their patients. While physicians have the option of withdrawing from a case, they should notify the patient (or authorized decision maker) long enough in advance to permit the patient to secure another physician and facilitate transfer of care when appropriate [57]. Patients may also be given resources and/or recommendations to help them locate a new clinician.

Patients with chronic pain found to have an ongoing substance abuse problem or addiction should be referred to a pain specialist for continued treatment. Theft or loss of controlled substances is reported to the DEA. If drug diversion has occurred, the activity should be documented and a report to law enforcement should be made [58].

COMPLIANCE WITH STATE AND FEDERAL LAWS

In response to the rising incidence in prescription opioid abuse, addiction, diversion, and overdose since the late 1990s, the FDA has mandated opioid-specific REMS to reduce the potential negative patient and societal effects of prescribed opioids. Other elements of opioid risk mitigation include FDA partnering with other governmental agencies, state professional licensing boards, and societies of healthcare professionals to help improve prescriber knowledge of appropriate and safe opioid prescribing and safe home storage and disposal of unused medication [24].

Several regulations and programs at the state level have been enacted in an effort to reduce prescription opioid abuse, diversion, and overdose, including [59]:

- Physical examination required prior to prescribing
- Tamper-resistant prescription forms
- Pain clinic regulatory oversight
- Prescription limits
- Prohibition from obtaining controlled substance prescriptions from multiple providers
- Patient identification required before dispensing
- Immunity from prosecution or mitigation at sentencing for individuals seeking assistance during an overdose

The DEA is responsible for formulating federal standards for the handling of controlled substances. In 2011, the DEA began requiring every state to implement electronic databases that track prescribing habits. Specific policies regarding controlled substances are administered at the state level [60].

According to the DEA, drugs, substances, and certain chemicals used to make drugs are classified into five distinct categories or schedules depending upon the drug's acceptable medical use and the drug's abuse or dependency potential [61]. The abuse rate is a determinate factor in the scheduling of the drug; for example, Schedule I drugs are considered the most dangerous class of drugs with a high potential for abuse and potentially severe psychologic and/or physical dependence.

CONCLUSION

Opioid analgesic medications can bring substantial relief to patients suffering from pain. However, the inappropriate use, abuse, and diversion of prescription drugs in America, particularly prescription opioids, has increased dramatically in recent years and has been identified as a national public health epidemic. A set of clinical tools, guidelines, and recommendations are now available for prescribers who treat patients with opioids. By implementing these tools, the clinician can effectively address issues related to the clinical management of opioid prescribing, opioid risk management, regulations surrounding the prescribing of opioids, and problematic opioid use by patients. In doing so, healthcare professionals are more likely to achieve a balance between the benefits and risks of opioid prescribing, optimize patient attainment of therapeutic goals, and avoid the risk to patient outcome, public health, and viability of their own practice imposed by deficits in knowledge.

RESOURCES

CENTERS FOR DISEASE CONTROL AND PREVENTION CLINICAL GUIDANCE

Guideline for Prescribing Opioids for Chronic Pain
https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm

Calculating the Total Daily Dose of Opioids for Safer Dosage
https://www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose-a.pdf

Opioid Guideline Mobile App
https://www.cdc.gov/opioids/providers/prescribing/app.html

TENNESSEE DEPARTMENT OF HEALTH

Tennessee Chronic Pain Guidelines
https://www.tn.gov/content/dam/tn/health/healthprofboards/pain-management-clinic/ChronicPainGuidelines.pdf

Tennessee Nonresidential Buprenorphine Treatment Guidelines
https://www.tn.gov/content/dam/tn/health/documents/2018%20Buprenorphine%20Tx%20Guidelines.PDF

Tennessee Drug Overdose Dashboard
https://www.tn.gov/health/health-program-areas/pdo/pdo/data-dashboard.html

Tennessee Pain Clinic Guideline
https://www.tn.gov/content/dam/tn/health/healthprofboards/pain-management-clinic/Pain_Clinic_Guidelines.pdf

Neonatal Abstinence Syndrome (NAS) Surveillance Annual Reports
https://www.tn.gov/content/tn/health/nas/nas-update-archive.html

TENNESSEE LAW

Addison Sharp Prescription Regulatory Act of 2013
http://www.capitol.tn.gov/Bills/108/Amend/SA0278.pdf

Tennessee Prescription Safety Act of 2016
https://publications.tnsosfiles.com/acts/109/pub/pc1002.pdf

Tennessee's Oversight of Opioid Prescribing and Monitoring of Opioid Use, 2019
https://oig.hhs.gov/oas/reports/region4/41800124_Factsheet.pdf

Prescription Drug Abuse and Pain Management Clinics, January 2022
https://www.tn.gov/content/dam/tn/health/program-areas/reports_and_publications/Pain-Management-Legislative-Report-2022.pdf

Implicit Bias in Health Care

The role of implicit biases on healthcare outcomes has become a concern, as there is some evidence that implicit biases contribute to health disparities, professionals' attitudes toward and interactions with patients, quality of care, diagnoses, and treatment decisions. This may produce differences in help-seeking, diagnoses, and ultimately treatments and interventions. Implicit biases may also unwittingly produce professional behaviors, attitudes, and interactions that reduce patients' trust and comfort with their provider, leading to earlier termination of visits and/or reduced adherence and follow-up. Disadvantaged groups are marginalized in the healthcare system and vulnerable on multiple levels; health professionals' implicit biases can further exacerbate these existing disadvantages.

Interventions or strategies designed to reduce implicit bias may be categorized as change-based or control-based. Change-based interventions focus on reducing or changing cognitive associations underlying implicit biases. These interventions might include challenging stereotypes. Conversely, control-based interventions involve reducing the effects of the implicit bias on the individual's behaviors. These strategies include increasing awareness of biased thoughts and responses. The two types of interventions are not mutually exclusive and may be used synergistically.

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