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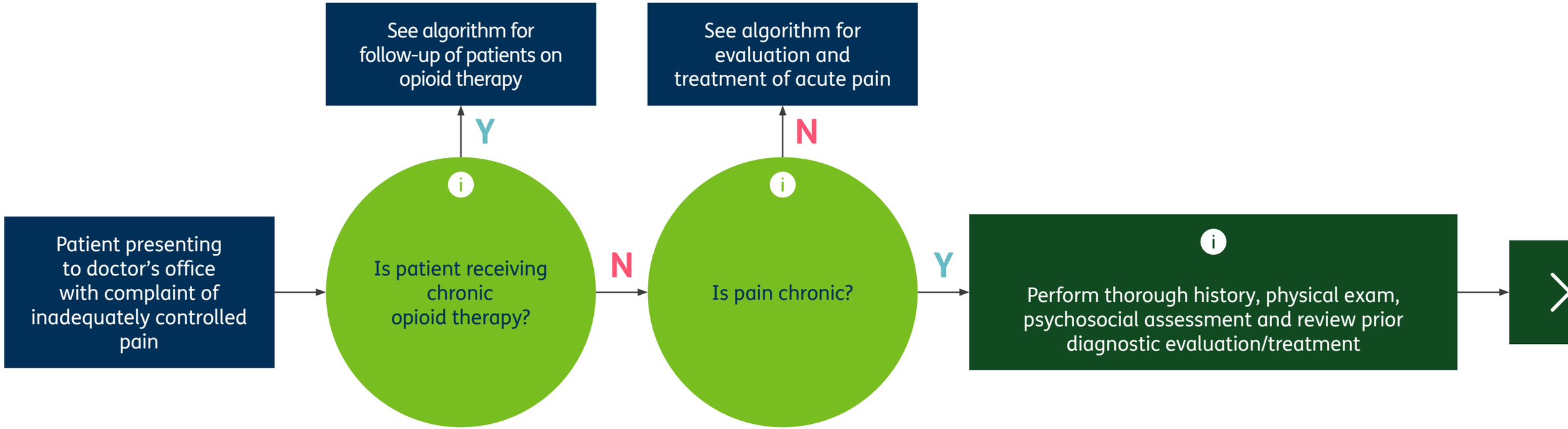

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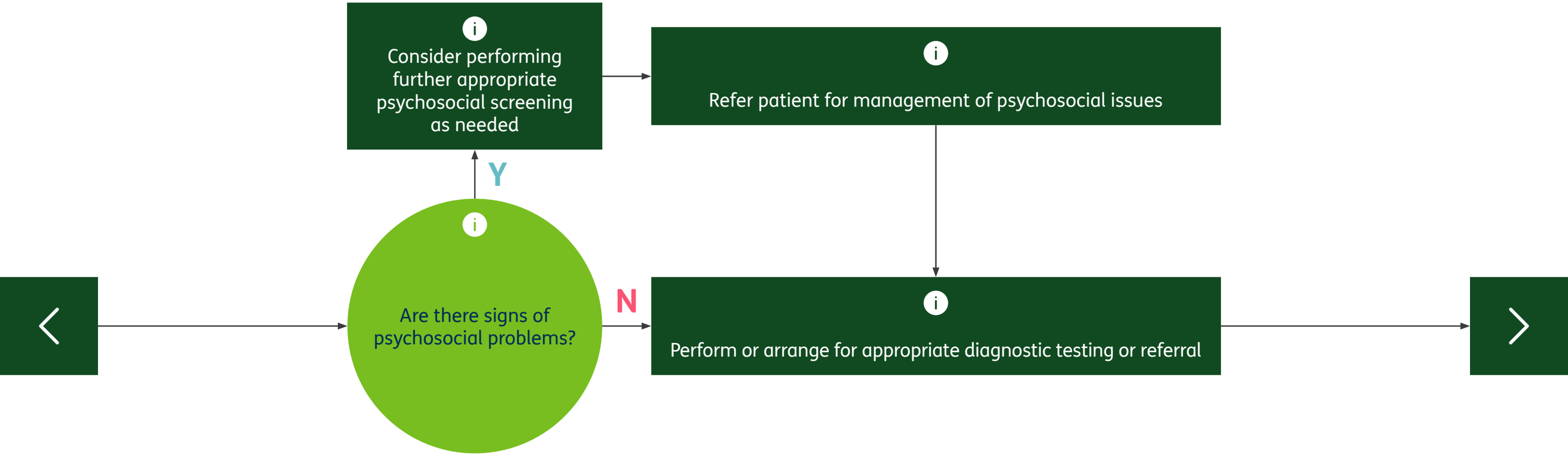

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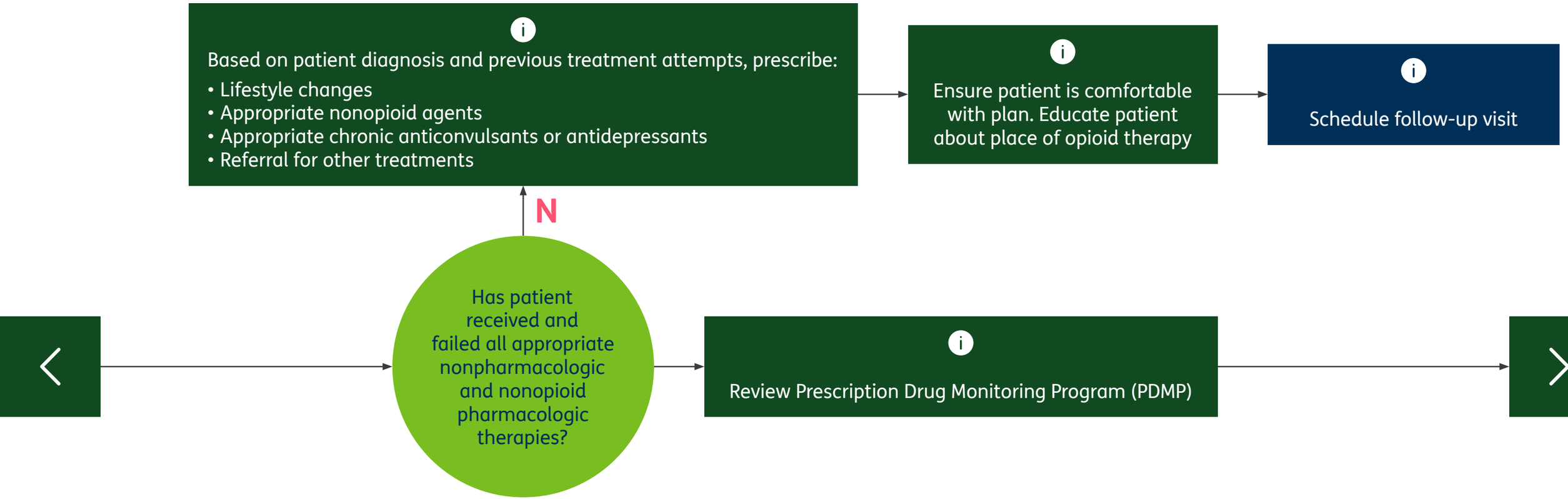

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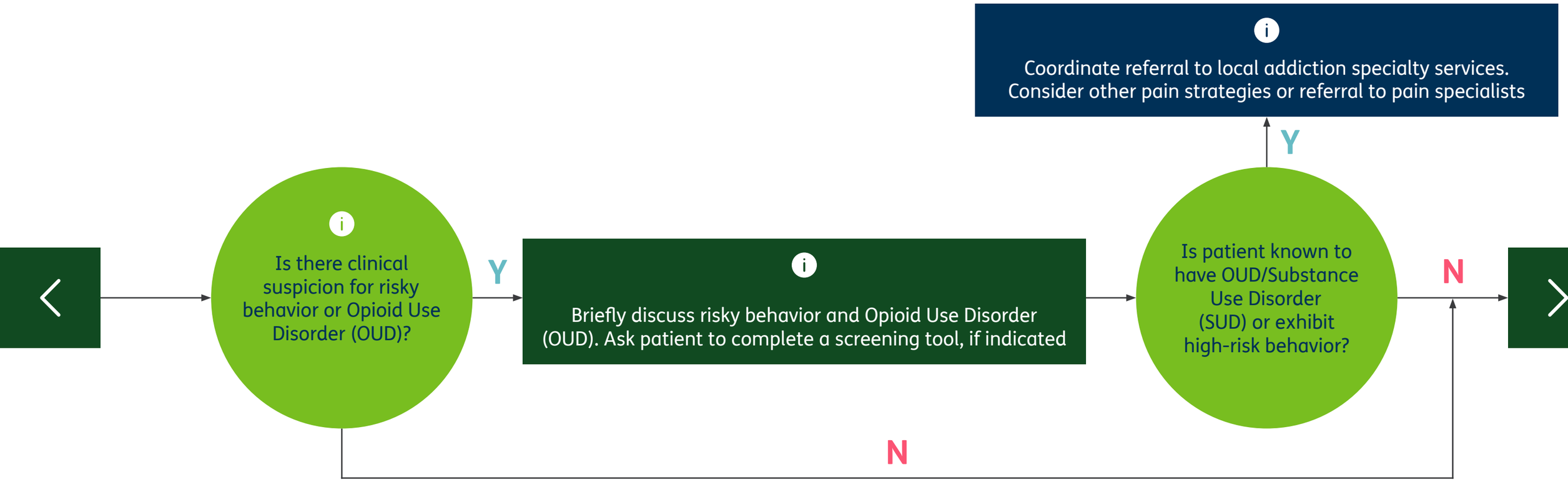

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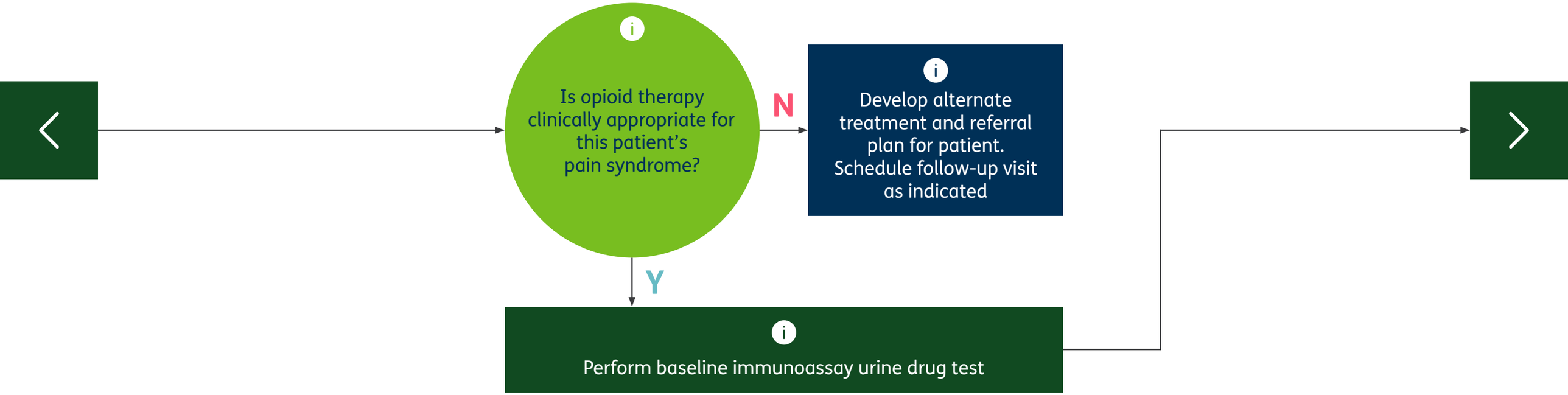

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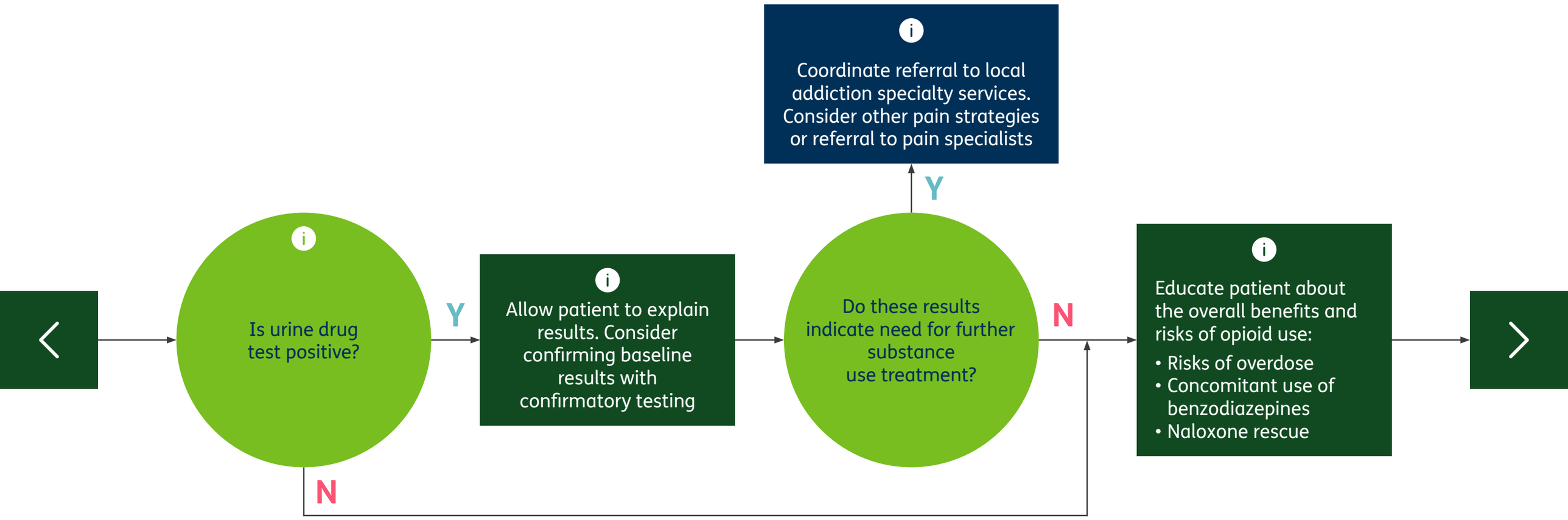

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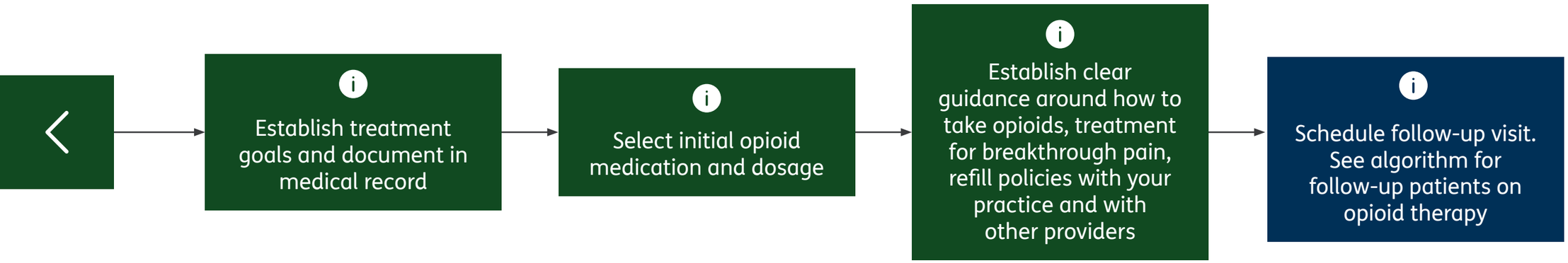

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Is patient receiving chronic opioid therapy?

A newly transferred patient currently taking opioids should be reassessed to determine the necessity for continuation of opioid therapy.

The practitioner should define meaningful treatment goals for pain and function with input from the patient. In the absence of sustained Clinically Meaningful Improvement (CMI) in pain and function, a dosage reduction or discontinuation of opioid therapy may be warranted. [21]

Is pain chronic?

Pain can be categorized as acute, subacute or chronic.

Acute pain is generally caused by injury, trauma or surgery, and typically resolves within 30 days of the underlying cause. [1]

Subacute pain is the continuation of acute pain beyond 30 days, but does not exceed three months.[1]

Chronic pain is generally defined as persistent or episodic pain continuing beyond normal tissue healing, typically lasting longer than three months. [2]

Types of pain: [9]

- Neuropathic pain (e.g., diabetic peripheral neuropathy, shingles and post-herpetic neuralgia, phantom limb pain, trigeminal neuralgia)
- Nociceptive pain (e.g., arthritis, muscle sprain/strain, broken bone)
- Visceral pain (e.g., kidney stones, abdominal pain from irritable bowel syndrome)

Perform thorough history, physical exam, psychosocial assessment and review prior diagnostic evaluation/treatment.

A comprehensive approach to pain is essential since the effects of pain involve biological, psychological and social factors. Healthcare professionals, therefore, should perform a comprehensive assessment on patients presenting with pain.

For the medical history, the Primary Care Manager (PCM) should elicit detailed information about the history of the pain, including etiology, location, pattern, intensity, duration, aggravating and alleviating factors and pathophysiology (neuropathic, nociceptive, visceral). [9]

The PCM should also review details about prior evaluations, prior treatments, current treatment regimen, nonpharmacologic and nonopioid pharmacotherapy options, opioid therapy, surgery or other invasive procedures, consultations and prior diagnostic tests. [9]

The gold standard for measuring pain intensity to enable monitoring of treatment response is through the use of self-reporting. Multiple reliable and valid pain and function assessment tools can be used to assist with accurately measuring pain.[10]

The PCM should also verify current and past medications (including prior opioid use to determine opioid tolerance), confirm allergies, obtain a family history and review medical conditions including disabilities. [9]

For the psychosocial history, the PCM should interview the patient about alcohol, drug and tobacco use, as well as the presence or history of behavioral health and psychiatric comorbidities. The PCM should also inquire if the pain interferes with fulfilling work, school or home obligations. [9]

Acquiring the details of the patient's history provides an opportunity for the PCM to establish rapport with the patient, thus enhancing the provider-patient relationship.

Refer to the **Biopsychosocial assessment of pain** section for further details.

The PCM should interview the patient about alcohol, drug and tobacco use, as well as the presence or history of behavioral health and psychiatric comorbidities.

The Healthcare provider should also inquire if the pain interferes with fulfilling work, school or home obligations. [9]

Refer to the **Biopsychosocial assessment of pain** section for further details.

Consider performing further appropriate psychosocial screening as needed.

Evaluating past and current alcohol and drug use is necessary as opioid use often concomitantly occurs with the use of other substances.

- **Single-item alcohol screen**
- **Alcohol Use Disorders Identification Test (AUDIT)**

A few pertinent screening tools used to assess behavioral health and psychiatric disorders:

- **Patient Health Questionnaire 2 (PHQ-2)**
- **My Mood Monitor (M-3)**

In addition to inquiring about relevant social and environmental factors (living conditions, marital and employment stability, social support system), the clinician should ask about general well-being (**Healthy Living Questionnaire**) and life events (**Life Events Checklist**). [28]

An overall pragmatic screening strategy involves the use of a pre-screening tool followed by a secondary screening tool to stratify risk, when indicated.

- Pre-screening tools provide the means to quickly evaluate risky opioid behaviors. A positive response obtained during the pre-screen requires advancing to a comprehensive secondary screening instrument
- Numerous multi-question secondary screening tools have been designed for use in the primary care setting to identify the individual's level of risk [29,30]

Refer patient for management of psychosocial issues.

Psychosocial therapy may include counseling, family support involvement, and referrals to community services (i.e., transportation, food services, etc.). The Primary Care Manager (PCM) should advocate for incorporation of psychosocial referrals when appropriate to optimize overall care. [2]

Psychological therapies, while often overlooked as a treatment option for pain, may also complement other therapeutic strategies. Some psychological therapies include cognitive-behavioral therapy, biofeedback and mindfulness-based stress reduction. These modalities may be delivered as an independent treatment or paired with pharmacotherapy. They may also be customized to meet the needs of the individual patient and may address additional comorbid psychiatric issues. [9,17]

Urgent or emergent psychiatric problems, such as suicidal or homicidal ideation, should be immediately referred for higher-level of care. [2]

Perform or arrange for appropriate diagnostic testing or referral.

Information obtained from the history and physical examination should guide the Primary Care Manager (PCM) in the need for ordering additional laboratory studies, imaging and diagnostic tests.

If the PCM determines additional work-up is warranted, a referral to a specialists may be considered. It is important to establish a communication feedback loop between the PCM and specialist to ensure proper medical care.

Based on patient diagnosis and previous treatment attempts, prescribe lifestyle changes, appropriate nonopioid agents, appropriate chronic anticonvulsants or antidepressants and referral for other treatments.

Initiating pain therapy with nonopioid pharmacologic therapy, in combination with nonpharmacologic therapy, is recommended.

Some common nonpharmacological approaches to help reduce pain and stress include Physical Therapy/Occupational Therapy (PT/OT), home exercise therapies, use of complementary and alternative therapies and physical modalities. [9,17]

First-line medications addressing disease-specific conditions are preferential when selecting a nonopioid agent.

If first-line therapies fail to achieve the desired outcome within a reasonable amount of time, then medications targeting different pathways may be attempted to provide pain relief.

Common nonopioid analgesics include acetaminophen, Nonsteroidal Anti-Inflammatory Drugs (NSAID), topical agents, antidepressants and anticonvulsants.

The medication used will depend on pain characteristics and patient risk factors associated with the selected medication.

Adjuvant analgesics are medications with primary indications other than pain, but are used to manage pain for certain conditions. Anticonvulsants and antidepressants fall within this category. These medications may be particularly effective for neuropathic pain. [9,18,19]

Refer to the **Nonopioid treatment interventions** section and **Appendix A: Nonopioid pharmacotherapy options** for further details.

Ensure patient is comfortable with plan. Educate patient about place of opioid therapy.

Initiating pain therapy with nonopioid pharmacologic therapy, in combination with nonpharmacologic therapy, is recommended. [9,18,19]

Refer to the **Nonopioid treatment interventions** section and **Appendix A: Nonopioid pharmacotherapy options** for further details.

Schedule follow-up visit.

A follow-up visit should be scheduled based on chosen nonopioid treatment intervention.

Review Prescription Drug Monitoring Program (PDMP).

The CDC guideline recommends reviewing the PDMP:

- Prior to initiating opioid therapy
- Intermittently during opioid therapy (i.e., every prescription refill or every three months) [2]

In order to review information about patient-specific use of controlled substance prescriptions, prescribing and dispensing providers (or their delegates, such as nurses or medical assistants) can register with their state PDMP.

State PDMPs allow practitioners to review information about patient-specific use of controlled substance prescriptions, such as opioid analgesics, benzodiazepines and stimulants.

These electronic databases aid in reducing misuse, abuse, diversion and overdose by tracking prescription and dispensary behaviors.

PDMPs can also be used to confirm the accuracy of screening results and to determine any inconsistencies between screening responses and PDMP data.

Each state has its own specific prescriber use mandates delineating database use frequency, prescribing restrictions, and which drugs prompt PDMP review. Since PDMP policies vary from state to state, it is recommended to review a specific state PDMP at **pdmpassist.org** or go directly to the specific state PDMP website. [25,26]

Results from the PDMP database should be placed in the patient's medical record.

Refer to the **Opioid therapy risk mitigation** section for further details.

Is there clinical suspicion for risky behavior or Opioid Use Disorder (OUD)?

Research has identified individual risk factors associated with opioid misuse or OUD. These risk factors include:

- A personal history of Substance Use Disorder (SUD), behavioral illness and/or overdose [20]
- Younger age, psychotropic medication use, long-term or high-dose opioid use and a family history of substance abuse [20]
- Comorbid medical conditions known to possibly increase the risk of opioid-related toxicities (i.e., COPD, congestive heart failure, sleep apnea, severe asthma, kidney or liver dysfunction, older age) [11,21]
- Concurrent use of benzodiazepines or other sedative hypnotics [21]
- Additional aberrant behaviors that should prompt screening include calls after office hours, frequent early refill requests, doctor and/or pharmacy shopping, insistence that nonopioid medications are ineffective, and the need for only opioid therapy [22]

The Primary Care Manger (PCM) may consider asking a single question to assess the patient's substance use:

> *"How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?"*

An affirmative screen (1 or more times in the past year) should prompt further inquiry. [31]

Refer to the **Opioid therapy risk mitigation** section for further details.

Briefly discuss risky behavior and Opioid Use Disorder (OUD). Ask patient to complete a screening tool, if indicated.

Patients identified with any risk factors and/or aberrant behaviors should be further assessed with a validated screening tool.

Numerous screening tools have been designed to help identify patients on prescription opioids who may be at high risk of developing opioid misuse or OUD. Some screening tools concentrate on prescreening patients prior to starting long-term opioid therapy, whereas others focus on monitoring aberrant behaviors while currently on long-term opioid therapy.

- Current Opioid Misuse Measure (**COMM**)
- Diagnosis, Intractability, Risk, Efficacy (**DIRE**)
- Opioid Risk Tool (**ORT**)
- Screener and Opioid Assessment for Patients with Pain (**SOAPP**)

Screening tools are imperfect and may not be accurate predictors of aberrant behaviors. If screening indicates the presence of potential opioid misuse or abuse, further assessment is indicated prior to giving an opioid prescription. [23]

Refer to the **Opioid therapy risk mitigation** section and **Appendix B: Risk assessment instruments for opioid therapy** for further details.

Refer to the **Screening, Brief Intervention and Referral to Treatment (SBIRT)** guideline for further details.

Providing low-risk individuals with verbal and/or written educational material may be beneficial as it may enhance general knowledge about the risks of opioid misuse and aid in identifying risky behavior in others. Additionally, such materials may act as a reminder of the dangers associated with OUD in individuals with a past medical history of OUD. [29,30]

The **National Institute on Drug Abuse** website can be accessed to obtain patient handout materials.

- **Effects of Drugs**
- **FAQs About Opioids**
- **Pain Medicine (Oxy, Vike) Facts**
- **Prescription Drug Abuse**

Coordinate referral to local addiction specialty services. Consider other pain strategies or referral to pain specialists.

Individuals displaying higher risk factors for opioid misuse or potential Opioid Use Disorder (OUD) may benefit from brief intervention/treatment.

Addiction specialty services:

- Patients deemed high risk for opioid misuse or OUD may be candidates for referral to an addiction specialist
- Opioid treatment programs may occur in inpatient hospitals, residential addiction facilities, licensed intensive outpatient clinics and outpatient care settings
- **Quality treatment programs** have the following features:
  - State licensed or certified
  - Prescribes FDA-approved medications to aid in recovery and prevent relapse
  - Offers evidence-based therapies such as motivational intervention, cognitive behavioral therapy, counseling and peer support
  - Allows family members to participate in the treatment process
  - Provides long-term treatments such as ongoing counseling, coaching and support, sober housing, employment supports
- Information on publicly funded Substance Use Disorder (SUD) treatment facilities may be found on SAMHSA's **Behavioral Health Treatment Services Locator** website

Pain management specialist:

- Patients with complex histories (i.e., concurrent use of opioids with other central nervous system depressants, high-dose opioid management) may benefit from involvement of a pharmacist or referral to a pain management specialist

Lastly, the Primary Care Manager (PCM) should advocate for incorporation of psychosocial referrals when appropriate to optimize overall care. [28]

Is opioid therapy clinically appropriate for this patient's pain syndrome?

Opioids may be considered for treatment of pain in patients who have failed to respond adequately to conventional therapies and where the benefits of using opioid therapy outweigh the risks. Concomitant therapy with nonpharmacologic and nonopioid treatments should be used when appropriate. [2,19]

Practitioners should carefully weigh the decision to begin chronic opioid therapy, as approximately one in five individuals on opioid therapy will develop Opioid Use Disorder (OUD). This proportion does not include tolerance or physical dependence.

A treatment plan outlining overall goals should be in place prior to initiating opioid therapy, and the details of this plan should be communicated with the patient. [21]

Prescribing opioid therapy for chronic pain should only occur if: [21]

- The pain interferes with functionality and quality of life
- Nonopioid treatment interventions proved ineffective
- An opioid trial exhibited Clinically Meaningful Improvement (CMI) in both pain and function in the absence of serious adverse effects

Develop alternate treatment and referral plan for patient. Schedule follow-up visit as indicated.

If harms outweigh benefits of initiating opioid therapy, alternative therapies should be optimized.

Instances when opioids may not be clinically appropriate for pain management: [11,20,21,22]

- Patient has a history of Substance Use Disorder (SUD), behavioral illnesses and/or overdose
- Comorbid medical conditions known to possibly increase the risk of opioid-related toxicities (i.e., COPD, congestive heart failure, sleep apnea, severe asthma, kidney or liver dysfunction, older age)
- Concurrent use of benzodiazepines or other sedative hypnotics
- Prior opioid therapy ineffective
- Opioid therapy is inappropriate for pain type

Perform baseline immunoassay urine drug test.

Urine drug testing may enhance compliance as well as deter and detect abuse. Consistent application of a predetermined urine drug testing policy may destigmatize the use of such testing.

Patients starting or maintaining opioid therapy should be informed that urine drug testing will routinely occur and will enhance patient safety. Primary Care Managers (PCM) should educate patients on expected results from the screening. [11]

Urine drug testing should occur: [2,11]

- Prior to initiating opioid therapy
- Before increasing opioid dosages
- At a minimum, annually for low risk patients, twice a year for moderate risk patients, and three to four times per year for high-risk patients to monitor long-term use of opioid therapy
- Randomly if the practitioner suspects opioid diversion

Standard urine drug testing is sensitive for detecting metabolites of certain opioids.

Specialized testing is necessary for the prescribed opioids not detected by immunoassay screening. Providers should be knowledgeable with the metabolites associated with other drugs and their respective tests. [2]

Refer to the **Opioid therapy risk mitigation** section and **Appendix C: Urine drug testing** for further details.

Is urine drug test positive?

Discuss the urine drug test results with the patient and, if appropriate, allow for an explanation of unexpected results.

The Primary Care Manager (PCM) may consider initiating the conversation by asking:

> *"The results of your urine drug test were positive for [insert drug name]. Can you help me understand these results?"*

A lack of an unjustifiable explanation may warrant further confirmatory testing, using chromatography, mass spectrometry, liquid chromatography or tandem mass spectrometry.

Be cognizant of the additional expenses associated with confirmatory testing.[2,11]

Refer to the **Opioid therapy risk mitigation** section and **Appendix C: Urine drug testing** for further details.

Allow patient to explain results. Consider confirming baseline results with confirmatory testing.

A lack of an unjustifiable explanation may warrant further confirmatory testing, using chromatography, mass spectrometry, liquid chromatography or tandem mass spectrometry.

Be cognizant of the additional expenses associated with confirmatory testing.[2,11]

While urine drug testing is effective in detecting the presence of a drug or its metabolite(s), urine drug testing is unable to provide definitive data regarding the dosage taken, when it was taken or the ultimate drug source.[11]

Refer to the **Opioid therapy risk mitigation** section and **Appendix C: Urine drug testing** for further details.

Coordinate referral to local addiction specialty services. Consider other pain strategies or referral to pain specialists.

Individuals displaying higher risk factors for opioid misuse or potential Opioid Use Disorder (OUD) may benefit from brief intervention/treatment.

Addiction specialty services:

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Lastly, the Primary Care Manager (PCM) should advocate for incorporation of psychosocial referrals when appropriate to optimize overall care.[28]

Educate patient about the overall benefits and risks of opioid use.

Adverse effects are common during opioid therapy.

Practitioners should discuss and ensure the patient's understanding of the potential risks associated with initiating opioid therapy.

Inquiries to identify adverse effects should be performed at regular intervals. These discussions should incorporate the following:[2,21]

- Emphasize the potential for overdose and fatal respiratory depression. Providers should consider prescribing naloxone for home use to individuals who are at high risk of opioid overdose (i.e., opioid prescription exceeding 50 Morphine Milligram Equivalents per day [MME/day], concurrent benzodiazepine use, prior incidence of overdose or history of Substance Use Disorder [SUD])
- Educate the patient about the risks of developing physical dependence, withdrawal symptoms when reducing or discontinuing opioid therapy and Opioid Use Disorder (OUD)
- Inform the patient how opioids may adversely affect one's ability to safely operate a vehicle or machinery. This impairment is more frequently associated when initiating opioid therapy, when increasing dosage titration or used concomitantly with other sedatives
- Advise the patient on the side effects of opioid use, including constipation, dry mouth, nausea, vomiting, drowsiness and confusion

It should be explained that evaluation of the opioid's efficacy and benefits weighed against any opioid-related risks will determine continuation or discontinuation of treatment.

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Establish treatment goals and document in medical record.

The goals of therapy should be established prior to starting opioids. Treatment goals should be attainable and focus on Clinically Meaningful Improvement (CMI) in pain relief and functionality. Evaluation of treatment efficacy should be defined, such as a 30% improvement in pain and function scores. Pain improvement without concurrent functional improvement does not represent CMI, excluding catastrophic injuries. Continuation of opioid therapy is contingent upon achieving treatment goals with no evidence of adverse effects or aberrant behaviors. Well-defined treatment goals can guide decision making pertaining to dosage titration and discontinuation of treatment.[2]

While establishing treatment goals, practitioners should emphasize the following information pertaining to the use of opioids for chronic pain:[2]

- There is limited evidence supporting the long-term use of opioids for improving pain or function
- A primary goal of therapy is to improve function, which may occur while pain is still present (as complete relief may not be attainable)
- Assessing outcomes of opioid therapy (i.e., adverse effects, completion of pain and function assessment scales) is an ongoing process to determine the cause of not attaining treatment goals
- Discontinuation of opioid therapy may be considered in those instances when risks outweigh benefits

The rationale for initiating opioid therapy and the goals of therapy should be clearly documented in the patient's medical record.

Refer to **Initiation of opioid therapy for chronic pain** section for further details.

Select initial opioid medication and dosage.

Key principals for initiating chronic opioid therapy: [2,11]

- Start with an Immediate-Release/Short-Acting (IR/SA) opioid at the lowest effective dosage
- The use of Extended-Release/Long-Acting (ER/LA) opioids should be avoided as monotherapy and in combination with IR/SA preparations to reduce the risk of overdose
- Avoid prescribing methadone unless the practitioner is familiar with its pharmacokinetics. Methadone's clearance is uneven, it is associated with many drug-to-drug interactions, and it requires additional monitoring
- Start opioid on an as needed basis rather than on a scheduled basis
- Calculate the daily dosage of opioids using the Morphine Milligram Equivalents (MME)/day metric to gauge potential risk of overdose and to help identify the need for dosage reduction or taper
- Only prescribe the quantity necessary for the duration between the initial visit and follow-up. Consider prescribing in multiples of a seven-day supply to avoid prescription ending on the weekend
- To optimize therapeutic outcomes, opioid therapy should be combined with nonpharmacologic modalities and nonopioid analgesics when possible, using the minimal effective dose of all pharmacologic agents
- The risks, benefits and treatment goals of opioid therapy should be reiterated with the patient and the patient's representatives (i.e., caregivers, family members, friends)
- It should also be explained that evaluation of the trial's efficacy and benefits weighed against any opioid-related risks will determine continuation or discontinuation of treatment

Refer to **Initiation of opioid therapy for chronic pain** section and **Appendix D: Morphine Milligram Equivalent (MME) for oral opioids** for further details.

Additional information about recommended starting doses and thresholds for selected opioids may be found on page 55 of the **Interagency Guideline on Prescribing Opioids for Pain**.

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Establish clear guidance around how to take opioids, treatment for breakthrough pain, refill policies with your practice with other providers.

Treatment agreements may provide a sense of collaboration when a course of action is mutually agreed upon by the provider and patient.

The provisions for such agreements could address multiple responsibilities, such as treatment goals, compliance monitoring, use of a single prescriber and pharmacy, approach to refills, use of other controlled substances (both prescribed and illicit), and noncompliance resolutions.

Both the provider and patient should sign the treatment agreement prior to initiating long-term opioid therapy.[23]

Example of opioid treatment agreements:

Sample Opiate/Pain Management Agreement

Pain Treatment with Opioid Medications: Patient Agreement

Controlled Substance Pain Management Agreement

Schedule follow-up visit. See algorithm for follow-up patients on opioid therapy.

The practitioner should assess the patient's progress within one month of initiating opioid therapy for chronic pain.

More frequent follow-up assessments are required for patients at higher risk for opioid misuse.

This visit will allow the practitioner to gauge the following: meaningful pain and function improvements, side effects, serious adverse events and presence of aberrant behaviors.[2]

Concerns regarding the opioid epidemic have fueled considerable interest in nonopioid strategies for pain management. Initial treatment for acute or chronic pain typically involves a combination approach of nonpharmacologic therapy and simple analgesics. Initiating therapy with nonopioid treatment interventions may preclude the need for opioids or reduce the amount of opioids required to effectively manage the patient's pain. Furthermore, this approach may decrease the incidence of opioid-related side effects and obviate the risk of opioid misuse, abuse, and diversion. [2,9]

It is important to understand the differences between tolerance, physical dependence and Opioid Use Disorder (OUD).

Tolerance

Tolerance is a biological response to the repeated use of a drug over time requiring increased dosages of the drug to achieve the same result. [2]

Physical dependence

Physical dependence is evidenced by the presentation of withdrawal symptoms when a drug is abruptly discontinued or rapidly tapered. [2]

OUD

OUD is a problematic pattern of opioid use occurring within a 12-month period that contributes to clinically significant

Nonpharmacologic options

The use of medications and surgical interventions to treat acute or chronic pain may be associated with undesirable side effects and risk, and there may be concerns about long-term dependence on pain medications. Therefore, nonpharmacological approaches to reducing pain and improving function are of interest to providers, patients, and caregivers.

Some common nonpharmacological approaches to help reduce pain and stress include: [9,17]

- Physical therapy, occupational therapy, and home exercise therapies (e.g., strength training, stretching, endurance training)
- Use of complementary and alternative therapies (e.g., acupuncture, spinal manipulation, massage therapy, yoga, tai chi)
- Physical modalities such as thermotherapy, cryotherapy, and Transcutaneous Electrical Nerve Stimulation (TENS)

Psychological therapies, while often overlooked as a treatment option for pain, may also complement other therapeutic strategies. Some psychological therapies include cognitive-behavioral therapy, biofeedback, and mindfulness-based stress reduction. These modalities may be delivered as an independent treatment or paired with pharmacotherapy. They may also be customized to meet the needs of the individual patient and may address additional comorbid psychiatric issues. [9,17]

Nonopioid pharmacotherapy options

A wide variety of nonopioid pharmacotherapy options are available to treat both acute and chronic pain. Initiating pain therapy with nonopioid pharmacologic therapy, in combination with nonpharmacologic therapy, is recommended. First-line medications addressing disease-specific conditions are preferential when selecting a nonopioid agent. [9,18,19]

Common nonopioid analgesics include acetaminophen, nonsteroidal anti-inflammatory drugs (NSAID), topical agents, antidepressants, and anticonvulsants. The medication used will depend on pain characteristics and patient risk factors associated with the selected medication. If first-line therapies fail to achieve the desired outcome within a reasonable amount of time, then medications targeting different pathways may be attempted to provide pain relief. [9,18,19]

Adjuvant analgesics are medications with primary indications other than pain, but are used to manage pain for certain conditions. Anticonvulsants and antidepressants fall within this category. These medications may be particularly effective for neuropathic pain. [9,18,19]

A plurality of pain conditions can be effectively managed with nonopioid analgesics and adjuvant analgesics with inherently less risk than opioids. [11] A list of common nonopioid pharmacologic therapies may be found in Appendix A.

Interventional treatment options

If pain symptoms continue, injections of local anesthetics and/or steroids can provide a nonsurgical treatment option for patients with persistent pain. Other effective interventional therapies include nerve blocks, nerve denervation, spinal cord stimulation, pain pumps, and surgery. The use of interventional treatments may reduce the need for pharmacological pain management and, therefore, may decrease the incidence of drug-related side effects and OUD. [9]

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Nonopioid pharmacotherapy options

A wide variety of nonopioid pharmacotherapy options are available to treat both acute and chronic pain. Initiating pain therapy with nonopioid pharmacologic therapy, in combination with nonpharmacologic therapy, is recommended. First-line medications addressing disease-specific conditions are preferential when selecting a nonopioid agent. [9,18,19]

Common nonopioid analgesics include acetaminophen, nonsteroidal anti-inflammatory drugs NSAID, topical agents, antidepressants, and anticonvulsants. The medication used will depend on pain characteristics and patient risk factors associated with the selected medication. If first-line therapies fail to achieve the desired outcome within a reasonable amount of time, then medications targeting different pathways may be attempted to provide pain relief. [9,18,19]

Adjuvant analgesics are medications with primary indications other than pain, but are used to manage pain for certain conditions. Anticonvulsants and antidepressants fall within this category. These medications may be particularly effective for neuropathic pain. [9,18,19]

A plurality of pain conditions can be effectively managed with nonopioid analgesics and adjuvant analgesics with inherently less risk than opioids. [11] A list of common nonopioid pharmacologic therapies may be found in Appendix A.

Interventional treatment options

If pain symptoms continue, injections of local anesthetics and/or steroids can provide a nonsurgical treatment option for patients with persistent pain. Other effective interventional therapies include nerve blocks, nerve denervation, spinal cord stimulation, pain pumps, and surgery. The use of interventional treatments may reduce the need for pharmacological pain management and, therefore, may decrease the incidence of drug-related side effects and OUD. [9]

Appendix A: Nonopioid pharmacotherapy options

Medication	Comments	Side effects	Magnitude of benefits
Acetaminophen	First-line analgesic for mild to moderate pain; Poor anti-inflammatory properties; Possibly less effective than NSAIDs; Dose of 650 mg has been shown to be equivalent to 1000 mg	Hepatotoxicity, particularly in higher doses; Renal toxicity; FDA recommends to not exceed 4 g/day in adults without liver disease (3 g/day for older adults)	Small
NSAIDs	First-line analgesics for inflammatory, nociceptive pain; Consider concurrent H-2 inhibitor or PPI to avoid GI complications; Avoid if cGFR is < 60 ml/min/1.73 m2	GI, renal, and cardiovascular risk factors; COX-2 selective NSAIDs less GI toxicity; Black box warning of cardiovascular thrombotic events for all NSAIDs	Small to moderate
Topical agents	Consider as alternative first-line for superficial pain; Lidocaine for post-herpetic neuralgia; Topical NSAIDs for localized osteoarthritis; Topical capsaicin for osteoarthritis and post-herpetic neuralgia	Minimal side effects; Burning or irritation	Small to moderate
Antidepressants	First-line agent for neuropathic pain; TCAs and SNRIs for fibromyalgia or chronic musculoskeletal pain; TCAs for headache; Observe for cognitive impairment or sedation	Anticholinergic (e.g., dry mouth, urinary retention) and cardiac toxicities; SNRIs has a safer side-effect profile and is better tolerated; Titrate cautiously in elderly patients	Small to moderate
Anticonvulsants	First-line agent for neuropathic pain; Pregabalin approved for fibromyalgia	Sedation, dizziness, headache, ataxia, peripheral edema, weight gain	Small to moderate
Muscle relaxants	Should not be prescribed beyond a few weeks as they offer little long-term benefit; Do not prescribe cyclobenzaprine in combination with TCAs; Avoid carisoprodol due to risk of misuse and abuse	Sedation, cognitive impairment	Small

Key: COX-2, cyclooxygenase-2; FDA, Food and Drug Administration (FDA); GI, gastrointestinal; NSAIDs, nonsteroidal anti-inflammatory drugs; PPI, proton pump inhibitors; SNRIs, selective norepinephrine reuptake inhibitors; TCAs, tricyclic antidepressants

References: Owen et al. Evidence-based pain medicine for primary care physicians. Proc. (Baylor Univ Med Cent) 2018 Jan 8;31(1):37-47; CDC and Prevention. Nonopioid treatments for chronic pain. 2016; Agency Medical Directors' Group. Interagency guideline on prescribing opioids for pain. 2015.

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Risk factors

Research has identified individual risk factors associated with opioid misuse or OUD. These risk factors include:

- A personal history of substance abuse disorder (SUD), mental illness, and/or overdose [20]
- Younger age, psychotropic medication use, long-term or high-dose opioid use, and a family history of substance abuse [20]
- Comorbid medical conditions known to possibly increase the risk of opioid-related toxicities (i.e., chronic obstructive pulmonary disease, congestive heart failure, sleep apnea, severe asthma, kidney or liver dysfunction, older age) [11,21]
- Concurrent use of benzodiazepines or other sedative hypnotics [21]
- Known history of intestinal peristalsis issues [21]
- Additional aberrant behaviors that should prompt screening include calls after office hours, frequent early refill requests, doctor and/or pharmacy shopping, insistence that nonopioid medications are ineffective, and the need for only opioid therapy [22]

Patients identified with any risk factors and/or aberrant behaviors should be further assessed with a validated screening tool, and the PCM should check their state's prescription drug monitoring program (PDMP).

Screening tools

Numerous screening tools have been designed to help identify patients on prescription opioids who may be at high risk of developing opioid misuse or OUD. Some screening tools concentrate on prescreening patients prior to starting long-term opioid therapy, whereas others focus on monitoring aberrant behaviors while currently on long-term opioid therapy. Screening tools are imperfect and may not be accurate predictors of aberrant behaviors. If screening indicates the presence of potential opioid misuse or abuse, further assessment is indicated prior to giving an opioid prescription or continuing opioid therapy.23 Validated screening tools are described below with additional details and instruments in **Appendix B: Risk assessment instruments for opioid therapy**. Please be aware that the accuracy of these tools has been reported as inconsistent. [2]

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  - The COMM is a validated 17-item questionnaire used for identifying aberrant behaviors in patients on long-term opioid therapy. This is a patient self-reported tool that takes less than 10 minutes to complete. An affirmative score of 9 or higher is suggestive of opioid misuse
- Diagnosis, Intractability, Risk, Efficacy (DIRE)
  - The DIRE tool is a 7-item instrument administered by the PCM to assess the likelihood of patient compliance and risk of opioid misuse or abuse prior to starting long-term opioid therapy. A score of 13 or less suggests that long-term opioid therapy may not be a suitable treatment for the patient
- Opioid Risk Tool (ORT)
  - The ORT consists of 5 yes/no questions to assess risk for opioid misuse or abuse. This scale has been validated for use in adult patients prescribed opioid analgesics for chronic pain management. The tool can be administered in interview format or as a self-report instrument, and takes less than a minute to complete. A risk score of 8 or more is indicative of high risk for exhibiting future aberrant behaviors
- Screener and Opioid Assessment for Patients with Pain (SOAPP)
  - The SOAPP version 1.0 is a 14-item questionnaire identifying risk factors for opioid misuse or abuse in patients being considered for long-term opioid therapy. The tool is a self-reported instrument and takes less than 8 minutes to complete. An affirmative score is 7 or higher. The SOAPP tool is also available in 5- and 24-item versions

Avoid concomitant opioid and benzodiazepine prescribing

Concomitant use of an opioid and a benzodiazepine increases the risk of adverse events and overdose since both drugs potentiate the effects of respiratory depression. Prescription opioids combined with benzodiazepines were detected in 51.6% of overdose deaths. The avoidance of concomitant use of opioids and benzodiazepine therapies is recommended. [24]

Prescription Drug Monitoring Program (PDMP)

Prescribing and dispensing providers (or their delegates, such as nurses or medical assistants) can register with their state PDMP in order to review information about patient-specific use of controlled substance prescriptions. These electronic databases aid in reducing misuse, abuse, and overdose by tracking prescription and dispensary behaviors. [25,26]

To date, PDMPs are available in 49 states, the District of Columbia, and Guam. Each state has its own specific prescriber-use mandates delineating database-use frequency, prescribing restrictions, and which drugs prompt PDMP review. Since PDMP policies vary from state to state, it is recommended to review a specific state's PDMP at **pdmpassist.org** or go directly to the specific state's PDMP website. [25,26]

The CDC guideline recommends reviewing the PDMP: [2]

- Prior to initiating opioid therapy
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The PDMP may be integrated with other screening tools to assist with identifying patients at risk for overdose, opioid misuse, OUD, or diversion. Results from the PDMP database should be placed in the patient's medical record.

Urine drug testing

The use of urine drug testing may overcome the limited validity associated with self-reporting drug use and provide empirical data to supplement behavior monitoring. Urine drug testing may enhance compliance as well as deter and detect abuse. Consistent application of a predetermined urine drug testing policy may destigmatize the use of such testing. Patients starting or maintaining opioid therapy should be informed that urine drug testing will routinely occur and will enhance patient safety. Providers should educate patients on expected results from the screening. [11]

When determining which tests to perform, providers should target only substances that directly affect patient management. Inexpensive immunoassay screening is available for most situations when screening for commonly prescribed opioids. Standard urine drug testing is sensitive for detecting metabolites of certain opioids. Specialized testing is necessary for the prescribed opioids not detected by immunoassay screening. Providers should be knowledgeable with the metabolites associated with other drugs and their respective tests (see **Appendix C: Urine drug testing**). [2]

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- Randomly if the practitioner suspects opioid diversion

Discuss the urine drug testing results with the patient and, if appropriate, allow for an explanation of unexpected results. A lack of an unjustifiable explanation may warrant further confirmatory testing, using chromatography, mass spectrometry, liquid chromatography, or tandem mass spectrometry. Be cognizant of the additional expenses associated with confirmatory testing. [2,11]

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Treatment agreement

Treatment agreements may provide a sense of collaboration when a course of action is mutually agreed upon by the provider and patient. The provisions for such agreements could address multiple responsibilities, such as treatment goals, compliance monitoring, use of a single prescriber and pharmacy, approach to refills, use of other controlled substances (both prescribed and illicit), and noncompliance resolutions. Both the provider and patient should sign the treatment agreement prior to initiating long-term opioid therapy. [23]

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  - The COMM is a validated 17-item questionnaire used for identifying aberrant behaviors in patients on long-term opioid therapy. This is a patient self-reported tool that takes less than 10 minutes to complete. An affirmative score of 9 or higher is suggestive of opioid misuse
- Diagnosis, Intractability, Risk, Efficacy (DIRE)
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- Opioid Risk Tool (ORT)
  - The ORT consists of 5 yes/no questions to assess risk for opioid misuse or abuse. This scale has been validated for use in adult patients prescribed opioid analgesics for chronic pain management. The tool can be administered in interview format or as a self-report instrument, and takes less than a minute to complete. A risk score of 8 or more is indicative of high risk for exhibiting future aberrant behaviors
- Screener and Opioid Assessment for Patients with Pain (SOAPP)
  - The SOAPP version 1.0 is a 14-item questionnaire identifying risk factors for opioid misuse or abuse in patients being considered for long-term opioid therapy. The tool is a self-reported instrument and takes less than 8 minutes to complete. An affirmative score is 7 or higher. The SOAPP tool is also available in 5- and 24-item versions

Avoid concomitant opioid and benzodiazepine prescribing

Concomitant use of an opioid and a benzodiazepine increases the risk of adverse events and overdose since both drugs potentiate the effects of respiratory depression. Prescription opioids combined with benzodiazepines were detected in 51.6% of overdose deaths. The avoidance of concomitant use of opioids and benzodiazepine therapies is recommended. [24]

Prescription Drug Monitoring Program (PDMP)

Prescribing and dispensing providers (or their delegates, such as nurses or medical assistants) can register with their state PDMP in order to review information about patient-specific use of controlled substance prescriptions. These electronic databases aid in reducing misuse, abuse, and overdose by tracking prescription and dispensary behaviors. [25,26]

To date, PDMPs are available in 49 states, the District of Columbia, and Guam. Each state has its own specific prescriber-use mandates delineating database-use frequency, prescribing restrictions, and which drugs prompt PDMP review. Since PDMP policies vary from state to state, it is recommended to review a specific state's PDMP at **pdmpassist.org** or go directly to the specific state's PDMP website. [25,26]

The CDC guideline recommends reviewing the PDMP: [2]

- Prior to initiating opioid therapy
- Intermittently during opioid therapy (i.e., every prescription refill or every three months)

The PDMP may be integrated with other screening tools to assist with identifying patients at risk for overdose, opioid misuse, OUD, or diversion. Results from the PDMP database should be placed in the patient's medical record.

Urine drug testing

The use of urine drug testing may overcome the limited validity associated with self-reporting drug use and provide empirical data to supplement behavior monitoring. Urine drug testing may enhance compliance as well as deter and detect abuse. Consistent application of a predetermined urine drug testing policy may destigmatize the use of such testing. Patients starting or maintaining opioid therapy should be informed that urine drug testing will routinely occur and will enhance patient safety. Providers should educate patients on expected results from the screening. [11]

When determining which tests to perform, providers should target only substances that directly affect patient management. Inexpensive immunoassay screening is available for most situations when screening for commonly prescribed opioids. Standard urine drug testing is sensitive for detecting metabolites of certain opioids. Specialized testing is necessary for the prescribed opioids not detected by immunoassay screening. Providers should be knowledgeable with the metabolites associated with other drugs and their respective tests (see **Appendix C: Urine drug testing**). [2]

Urine drug testing should occur: [2,11]

- Prior to initiating opioid therapy
- Before increasing opioid dosages
- At a minimum, annually for low-risk patients, twice a year for moderate-risk patients, and three to four times per year for high-risk patients to monitor long-term use of opioid therapy
- Randomly if the practitioner suspects opioid diversion

Discuss the urine drug testing results with the patient and, if appropriate, allow for an explanation of unexpected results. A lack of an unjustifiable explanation may warrant further confirmatory testing, using chromatography, mass spectrometry, liquid chromatography, or tandem mass spectrometry. Be cognizant of the additional expenses associated with confirmatory testing. [2,11]

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Naloxone

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Treatment agreements may provide a sense of collaboration when a course of action is mutually agreed upon by the provider and patient. The provisions for such agreements could address multiple responsibilities, such as treatment goals, compliance monitoring, use of a single prescriber and pharmacy, approach to refills, use of other controlled substances (both prescribed and illicit), and noncompliance resolutions. Both the provider and patient should sign the treatment agreement prior to initiating long-term opioid therapy. [23]

Opioids are a class of drugs characterized as having analgesic and euphoric effects. The use of opioids for the treatment of pain may be associated with a number of side effects. Drowsiness, respiratory depression, nausea, vomiting, constipation, and pruritus commonly occur with opiate medications, and these agents are associated with risks of misuse, abuse, overdose, and diversion. Due to these negative effects, opioids are not recommended as first-line therapy for pain. Opioids may be considered for treatment of pain in patients who have failed to respond adequately to conventional therapies and where the benefits of using opioid therapy outweigh the risks. Concomitant therapy with nonpharmacologic and nonopioid treatments should be used when appropriate. [2,19]

Risk mitigation

Healthcare practitioners should adopt strategies to mitigate the risks associated with opioid therapy as opioid dependence occurs in 3% to 26% of patients seen in the primary care setting. Integration of various risk mitigation strategies into a treatment plan will help minimize the harms commonly associated with prescription opioid use. The Centers for Disease Control and Prevention (CDC) recommend evaluating for risk factors prior to initiating and during opioid therapy. [2]

Risk factors

Research has identified individual risk factors associated with opioid misuse or OUD. These risk factors include:

- A personal history of Substance Abuse Disorder (SUD), mental illness, and/or overdose [20]
- Younger age, psychotropic medication use, long-term or high-dose opioid use, and a family history of substance abuse [20]
- Comorbid medical conditions known to possibly increase the risk of opioid-related toxicities (i.e., chronic obstructive pulmonary disease, congestive heart failure, sleep apnea, severe asthma, kidney or liver dysfunction, older age) [11,21]
- Concurrent use of benzodiazepines or other sedative hypnotics [21]
- Known history of intestinal peristalsis issues [21]
- Additional aberrant behaviors that should prompt screening include calls after office hours, frequent early refill requests, doctor and/or pharmacy shopping, insistence that nonopioid medications are ineffective, and the need for only opioid therapy [22]

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Appendix B: Risk assessment instruments for opioid therapy

Screening tool	Administration	Description	Scoring	Sensitivity and specificity
Current Opioid Misuse Measure (COMM)	Patient self-report	17-item questionnaire used for identifying aberrant behaviors in patients on long-term opiod therapy.	A score ≥9 is indicative of a positive test.	Sensitivity: 77% Specificity: 66%
Diagnosis, Intractability, Risk, Efficacy (DIRE)	Clinician	Seven-item instrument to help identify chronic pain patients who may be at risk for opioid misuse or abuse prior to initiating long-term opioid therapy.	A score of ≤13 suggests that long-term opioid therapy may not be a suitable treatment for the patient.	Predicting compliance: Sensitivity: 77% Specificity: 66%
Opioid Risk Tool (ORT)	Clinician or patient self-report	Five yes/no questions to assess risk for opioid misuse or abuse in adult patients prescribed opioid analgesics for chronic pain management.	Stratifies patients into three risk groups: low (0-3), moderate (4-7) and high (≥8). A risk score of ≥8 is indicative of high risk for future aberrant behaviors.	c-statistic for males: c=0.82 c-statistic for females: c=0.85 *study involved a small sample size
Pain Assessment and Documentation Tool (PADT)	Clinician	41-item instrument assessing outcomes in patients with chronic pain receiving opioid therapy.	The PADT has cutoff scores.	Not applicable
Pain Medication Questionnaire (PMQ)	Patient self-report	26-item questionnaire used to assess opioid misuse in patients with chronic pain prescribed opioids.	Higher scores (>30) are suggestive of opioid misuse or abuse.	Sensitivity: 34% Specificity: 77%
Prescription drug use questionnaire	Patient self-report	31-item instrument that helps identify opioid misuse or OUD	Ascore of 10 or higher is considered positive.	Sensitivity: 66.7% Specificity: 59.7%

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Appendix B: Risk assessment instruments for opioid therapy

Screening tool	Administration	Description	Scoring	Sensitivity and specificity
Current Opioid Misuse Measure (COMM)	Patient self-report	17-item questionnaire used for identifying aberrant behaviors in patients on long-term opiod therapy.	A score ≥9 is indicative of a positive test.	Sensitivity: 77% Specificity: 66%
Diagnosis, Intractability, Risk, Efficacy (DIRE)	Clinician	Seven-item instrument to help identify chronic pain patients who may be at risk for opioid misuse or abuse prior to initiating long-term opioid therapy.	A score of ≤13 suggests that long-term opioid therapy may not be a suitable treatment for the patient.	Predicting compliance: Sensitivity: 77% Specificity: 66%
Opioid Risk Tool (ORT)	Clinician or patient self-report	Five yes/no questions to assess risk for opioid misuse or abuse in adult patients prescribed opioid analgesics for chronic pain management.	Stratifies patients into three risk groups: low (0-3), moderate (4-7) and high (≥8). A risk score of ≥8 is indicative of high risk for future aberrant behaviors.	c-statistic for males: c=0.82 c-statistic for females: c=0.85 *study involved a small sample size
Pain Assessment and Documentation Tool (PADT)	Clinician	41-item instrument assessing outcomes in patients with chronic pain receiving opioid therapy.	The PADT has cutoff scores.	Not applicable
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Description

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a preventive public health practice originally designed to deliver early intervention and treatment services for individuals who display risky alcohol behaviors. SBIRT has been expanded to include other risky behaviors, such as substance drug use, tobacco use, and mental health disorders. This provides healthcare professionals with options for identifying and managing a spectrum of behavioral health issues, from individuals diagnosed with a SUD to individuals with nondependent substance misuse problems. The goal is to promote changes in substance use behavior (reduction or abstinence), with the assumption that this may prevent more serious medical, social, psychological, or legal problems in the future. The SBIRT model encompasses three stages (screening, brief intervention, and referral to treatment) and may be implemented in a variety of settings, including primary care clinics. [10]

Screening

The SBIRT model utilizes screening as a preliminary and vital step in identifying individuals with opioid misuse or potential OUD. It is important to note that the screening process is not intended to be a diagnostic measure. Screening allows the healthcare professional to quickly assess for risky patterns associated with opioid misuse or OUD. [10] Furthermore, screening alone is unlikely to evoke change in an individual's risky opioid behaviors and, therefore, should be used in conjunction with intervention and referral. [9]

Successful implementation of an SBIRT program requires the office to assess their patients' needs and facility resources. Such assessment will allow the SBIRT program to be specifically tailored to the office's needs, thus maximizing its benefit. Given each facility's resources, the facility must determine which population to screen, how frequently to screen, which screening instruments to use, and method of instrument administration. [10]

Choosing a screening population

The population undergoing screening is to be determined by each facility. This determination can be revised based on evolving needs. Universal screening is entirely consistent with the SBIRT paradigm. Office constraints (i.e., time, staff availability, cost, etc.) may preclude a broad approach and require a more narrow focus towards at-risk individuals. Research has identified individual risk factors associated with opioid misuse or OUD. These risk factors include a personal history of SUD, mental illness, and/or overdose. Other distinctive risk factors include younger age, psychotropic medication use, long-term or high-dose opioid use, and a family history of SUD. [11] Additional aberrant behaviors that should prompt screening include calls after office hours, frequent early refill requests, doctor and/or pharmacy shopping, insistence that non-opioid medications are ineffective, and the need for opioid-only therapy. [12]

Choosing a screening tool

Each facility should select a screening tool that best meets their practice's needs. An overall pragmatic screening strategy involves the use of a pre-screening tool followed by a secondary instrument to stratify risk, when indicated. Pre-screening tools provide the means to quickly evaluate risky opioid behaviors. A positive response obtained during the pre-screen requires advancing to a comprehensive secondary screening instrument. Numerous multi-question secondary screening tools have been designed for use in the primary care setting to identify the individual's level of risk. [9,10]

Screening tools may be administered by face-to-face interview, written self-report on a form, or use of a computerized program. Some screening questionnaires for opioid use are embedded in other health and lifestyle behaviors questions (such as cocaine, alcohol consumption, depression, and tobacco use). [10]

Validated screening tools for the primary care setting are described below with additional options in **Appendix B: Risk assessment instruments for opioid therapy**. Information on additional screening tools may also be found at the National Institute on Drug Abuse (NIDA). [13]

Pre-screening tools

NIDA Quick Screen

- Question one: How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?
  - An affirmative screen of the **NIDA Quick Screen (version 1.0)** is one or more times (sensitivity of 82.5% and specificity of 91.1%) and should prompt further screening with a secondary instrument [14]

Tobacco, Alcohol, Prescription medications, and other Substance (TAPS-1)

- The **TAPS-1** is a four-item pre-screening tool addressing tobacco use, alcohol use, prescription medication misuse, and illicit drug use in the past 12 months. The tool is available electronically for self-administration or interviewer-administration. A positive screen should prompt further screening with the TAPS-2 tool (see below) [15]

Two-Item Drug Use Disorder Screen for Primary Care Clinics Serving United States Veterans

- Question one: How many days in the past 12 months have you used drugs other than alcohol?
  - An affirmative screen is seven or more days. Proceed to Question two if the response is less than seven days
- Question two: How many days in the past 12 months have you used drugs more than you meant to?
  - An affirmative screen is two or more days (sensitivity of 92% and specificity of 92%) and should prompt further screening with a secondary drug-screening instrument [6,16]

Secondary screening tools

Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST)

- The **ASSIST** (version 3.0) is an 8-item screening tool developed by the World Health Organization. Items cover use of alcohol, tobacco, and various prescription drugs as well as illicit substances, including opioids. It has been internationally tested and validated for use in adults in the primary care setting. It takes less than 10 minutes for the healthcare professional to administer the questionnaire to the individual. A risk score for each substance is assigned to one of three categories: low risk (0-3), moderate risk (4-26), and high risk (>27). Individuals categorized as moderate risk should receive brief intervention, whereas individuals categorized as high risk should undergo further assessment and be referred for more intensive treatment. When discriminating between opioid use and abuse, this instrument is sensitive (94%) and specific (96%). This tool is available in multiple languages [6,10,13,17]

Drug Abuse Screening Test (DAST-10)

- The **DAST-10** consists of 10 yes/no questions assessing use of various classes of drugs in adults over the past 12 months. This brief tool is both reliable and valid for use in different healthcare settings. The tool can be administered as a self-report instrument (available in paper format and electronically) or in interview format and takes approximately 5 minutes to complete. The risk score categories are healthy (0), risky (1-2), harmful (3-5), and severe (6+). The severe category is suggestive of substance use problems and these individuals should undergo further assessment and be referred to specialized treatment. The DAST-10 correlated very high with the DAST-20. This screening instrument has a sensitivity of 80-85% and a specificity of 78-88%. This tool is available in several languages and may require a fee associated with its electronic use [6,10,13,18]

Tobacco, Alcohol, Prescription medications, and other Substance (TAPS-2)

- The **TAPS-2** tool is the secondary screening tool to the pre-screen TAPS-1 tool and assesses more detailed use-related behaviors. Risk categories include no use in past 3 months (0), problem use (1), and higher risk (2+).15 With respect to substances other than tobacco, alcohol, and marijuana, individuals scoring 1+ should receive further assessment. Despite TAPS having acceptable sensitivity and specificity for tobacco, alcohol, and marijuana, it is not yet suitable for detecting opioid misuse or OUD. Therefore, no further discussion of TAPS will occur within this guideline [19]

Illicit substances (i.e., opioids) typically are not present on their own, as they are often accompanied by more common substance misuse (i.e., tobacco, alcohol, and marijuana). Due to the flexibility of the SBIRT model, healthcare providers can choose to screen for multiple substance use issues. Feedback may be tailored based on risk classifications, with interventions concentrating on the most problematic substances for the individual. [20]

Appendix C: Urine drug testing

Drug	Detection timeline	Test to order	Positive test	Comments
Buprenorphine (semi-synthetic)	Three to four days	GC/MS or LC/MS/MS	Buprenorphine	Will screen negative on opiate immunoassay; Causes of false positives: Tramadol
Codeine (natural)	One to three days	Opiate immunoassay + GC/MS or LC/MS/MS opiates	Morphine, codeine, high-dose hydrocodone	Will screen positive on opiate immunoassay; Cannot differentiate various natural opiates; Causes of false positives: poppy plant/seed, quinine, quinolone antibiotics and rifampin
Fentanyl (sythetic)	One to two days	GC/MS or LC/MS/MS fentanyl	Fentanyl, norfentanyl	Will screen negative on opiate immunoassay; May not detect all fentanyl-like substances
Heroin (semi-synthetic)	One to two days	Opiate immunoassay	Morphine, codeine	Will screen positive on opiate immunoassay, as heroin is metabolized to morphine
Hydrocodone (semi-synthetic)	Two days	Opiate immunoassay GC/MS or LC/MS/MS opiates	Hydrocodone, hydromorphone	May screen negative on opiate immunoassay; Opiate assay may only detect high-dose of hydrocodone
Methadone (synthetic)	Two to 11 days	Methadone immunoassay GC/MS or LC/MS/MS methadone	Methadone	Will screen negative on opiate immunoassay; Causes of flase positives: Verapamil, quetiapine, diphenhydramine and doxylamine

Key: Gas Chromatography (GC); MS, mass spectrometry; LC, liquid chromatography

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Fentanyl (sythetic)	One to two days	GC/MS or LC/MS/MS fentanyl	Fentanyl, norfentanyl	Will screen negative on opiate immunoassay; May not detect all fentanyl-like substances
Heroin (semi-synthetic)	One to two days	Opiate immunoassay	Morphine, codeine	Will screen positive on opiate immunoassay, as heroin is metabolized to morphine
Hydrocodone (semi-synthetic)	Two days	Opiate immunoassay GC/MS or LC/MS/MS opiates	Hydrocodone, hydromorphone	May screen negative on opiate immunoassay; Opiate assay may only detect high-dose of hydrocodone
Methadone (synthetic)	Two to 11 days	Methadone immunoassay GC/MS or LC/MS/MS methadone	Methadone	Will screen negative on opiate immunoassay; Causes of flase positives: Verapamil, quetiapine, diphenhydramine and doxylamine

Key: Gas Chromatography (GC); MS, mass spectrometry; LC, liquid chromatography

References: Substance Abuse and Mental Health Services Administration. Part 2: addressing opioid use disorder in general medical settings; (2018). Agency Medical Directors' Group. Interagency guideline on prescribing opioids for pain. 2015; HHS Publication No. (SMA) 18-5063PT2. Keary et al. Toxicologic testing for opiates: understanding false-positive and false-negative test results. *Prim Care Companion CNS Disord*. 2012; 14(4):PCC.12f01371.

Appendix C: Urine drug testing

Drug	Detection timeline	Test to order	Positive test	Comments
Buprenorphine (semi-synthetic)	Three to four days	GC/MS or LC/MS/MS	Buprenorphine	Will screen negative on opiate immunoassay; Causes of false positives: Tramadol
Codeine (natural)	One to three days	Opiate immunoassay + GC/MS or LC/MS/MS opiates	Morphine, codeine, high-dose hydrocodone	Will screen positive on opiate immunoassay; Cannot differentiate various natural opiates; Causes of false positives: poppy plant/seed, quinine, quinolone antibiotics and rifampin
Fentanyl (sythetic)	One to two days	GC/MS or LC/MS/MS fentanyl	Fentanyl, norfentanyl	Will screen negative on opiate immunoassay; May not detect all fentanyl-like substances
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Hydrocodone (semi-synthetic)	Two days	Opiate immunoassay GC/MS or LC/MS/MS opiates	Hydrocodone, hydromorphone	May screen negative on opiate immunoassay; Opiate assay may only detect high-dose of hydrocodone
Methadone (synthetic)	Two to 11 days	Methadone immunoassay GC/MS or LC/MS/MS methadone	Methadone	Will screen negative on opiate immunoassay; Causes of flase positives: Verapamil, quetiapine, diphenhydramine and doxylamine

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Making a decision to initiate or continue chronic opioid therapy

Practitioners should carefully weigh the decision to begin chronic opioid therapy, as approximately one in five individuals on opioid therapy will develop OUD. This proportion does not include tolerance or physical dependence. A treatment plan outlining overall goals should be in place prior to initiating opioid therapy, and the details of this plan should be communicated with the patient. [21]

Prescribing opioid therapy for chronic pain should only occur if: [21]

- The pain interferes with functionality and quality of life
- Nonopioid treatment interventions proved ineffective
- An opioid trial exhibited CMI in both pain and function in the absence of serious adverse effects

A newly transferred patient currently taking opioids should be reassessed to determine the necessity for continuation of opioid therapy. The practitioner should define meaningful treatment goals for pain and function with input from the patient. In the absence of sustained Clinically Meaningful Improvement (CMI) in pain and function, a dosage reduction or discontinuation of opioid therapy may be warranted. [21]

Establish treatment goals

The goals of therapy should be established prior to starting opioids. Treatment goals should be attainable and focus on CMI in pain relief and functionality. Evaluation of treatment efficacy should be defined, such as a 30% improvement in pain and function scores. Pain improvement without concurrent functional improvement does not represent CMI, excluding catastrophic injuries. Continuation of opioid therapy is contingent upon achieving treatment goals with no evidence of adverse effects or aberrant behaviors. Well-defined treatment goals can guide decision making pertaining to dosage titration and discontinuation of treatment. [2]

While establishing treatment goals, practitioners should emphasize the following information pertaining to the use of opioids for chronic pain: [2]

- There is limited evidence supporting the long-term use of opioids for improving pain or function
- A primary goal of therapy is to improve function, which may occur while pain is still present (as complete relief may not be attainable)
- Assessing outcomes of opioid therapy (i.e., adverse effects, completion of pain and function assessment scales) is an ongoing process to determine the cause of not attaining treatment goals
- Discontinuation of opioid therapy may be considered in instances when risks outweigh benefits

The rationale for initiating opioid therapy and the goals of therapy should be clearly documented in the patient's medical record.

Opioid selection and dosage

Opioid therapy for chronic pain should be conducted initially as a trial. Opioid selection should be individualized to the patient. There is little evidence showing that the efficacy of one opioid is superior over another opioid (e.g., oxycodone versus hydrocodone versus tramadol). Research also shows that adverse effects do not vary among opioids when administered in equianalgesic doses. [19]

Key principles for initiating chronic opioid therapy [2,11]

When initiating opioid therapy

- Start with an Immediate-Release/Short-Acting (IR/SA) opioid at the lowest effective dosage
- The use of Extended-Release/Long-Acting (ER/LA) opioids should be avoided as monotherapy and in combination with IR/SA preparations to reduce the risk of overdose
- Avoid prescribing methadone unless the practitioner is familiar with its pharmacokinetics. Methadone's clearance is uneven, it is associated with many drug-to-drug interactions, and it requires additional monitoring
- Start opioid on an as needed basis rather than on a scheduled basis
- Calculate the daily dosage of opioids using the Morphine Milligram Equivalent (MME)/day metric to gauge potential risk of overdose and to help identify the need for dosage reduction or taper
- Only prescribe the quantity necessary for the duration between the initial visit and follow-up. Consider prescribing in multiples of a seven-day supply to avoid prescription ending on the weekend
- To optimize therapeutic outcomes, opioid therapy should be combined with nonpharmacologic modalities and nonopioid analgesics when possible, using the minimal effective dose of all pharmacologic agents
- The risks, benefits, and treatment goals of opioid therapy should be reiterated with the patient and the patient's representatives (i.e., caregivers, family members, friends)
- It should also be explained that evaluation of the trial's efficacy and benefits weighed against any opioid-related risks will determine continuation or discontinuation of treatment

Bowel regimen

- Begin a bowel regimen, particularly in the elderly, to prevent opioid-induced constipation
- Recommend routine use of laxatives (use caution in the presence of renal insufficiency/failure)

Healthcare providers can benchmark an opioid dosage to a morphine equivalency by using the MME/day metric. This provides a mean to assess the abuse and overdose potential of the prescribed opioid dosage. This can identify the need for dosage reduction or escalation as well as the need to implement risk mitigation strategies, with a preference of underestimating a dose that may require incremental dose escalation than overestimating an opioid dose. Healthcare providers are cautioned against using MME calculations to convert the dose of one opioid to another opioid, as these conversions are based on estimated equianalgesic doses and cannot account for individual variability in genetics and pharmacokinetics (see **Appendix D: Morphine Milligram Equivalent (MME) for oral opioids**). [2]

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Appendix D: Morphine Milligram Equivalent (MME) for oral opioids

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 21-40 41-60 ≥61-80	 4 8 10 12
Morphine (reference)	1
Oxycodone	1.5
Oxymorphone	3
Tramadol	10

Do not use to convert one opioid to another.

Reference: Centers for Disease Control and Prevention. Calculating total daily dose of opioids for safe dosage. Agency Medical Directors' Group. Interagency guideline on prescribing opioids for pain. 2015.

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Biopsychosocial assessment

A comprehensive approach to pain is essential since the effects of pain involve biological, psychological, and social factors. Healthcare professionals, therefore, should perform a comprehensive assessment on patients presenting with pain. Information obtained from this assessment will help guide therapeutic decision making as well as identify patients potentially susceptible to opioid-associated adverse events, misuse, abuse, or overdose. [9]

Medical history

The medical history is an important component of the comprehensive assessment. The Primary Care Manager (PCM) should elicit detailed information about the history of the pain, including: [9]

Etiology	Intensity
Location	Duration
Pattern	Aggravating and alleviating factors
Pathophysiology (e.g., nociceptive pain, visceral pain, or neuropathic pain)	

The PCM should also review details about: [9]

Prior evaluation(s)	Opioid therapy
Prior treatment(s) (including outcome response)	Surgery or other invasive procedures
Current treatment regimen	Consultations
Nonpharmacologic options	Prior diagnostic test(s)
Nonopioid pharmacotherapy options	

The gold standard for measuring pain intensity to enable monitoring of treatment response is through the use of self-reporting. The unidimensional and multidimensional scales below are reliable and valid pain assessment tools that assist with accurately measuring pain. [10]

Unidimensional pain intensity scales

The below assessment tools are commonly used scales for evaluating pain intensity. Preferred scale use is patient-specific, with no specific scale being superior for detection of Clinically Meaningful Improvement (CMI) in function or minimum clinically important difference in outcome. [10,11]

Numerical Rating Scale (NRS)

- The **NRS** assesses pain intensity using an 11-point numerical scale of zero to 10, where zero equals no pain and 10 is the worst pain imaginable. This simple-to-use scale is the most commonly used instrument in healthcare. It can be administered both verbally and in written format.

Visual Analog Scale (VAS)

- The **VAS** is a continuous scale containing either a horizontal or vertical line from zero to 10. The line is anchored by the verbal descriptors “no pain” and “worst pain.” Patients are asked to place a mark on the line indicating their level of pain intensity. This scale can only be administered in written format.

Faces Pain Score (FPS)

- The **FPS** incorporates both numbers and facial expressions to determine a pain rating. This scale may be used for children, individuals with limited verbal abilities, and individuals whose native language is not English.

Multidimensional pain quality scale

A multidimensional pain quality scale captures sensory and affective attributes of pain. Below is a reliable and valid scale that provides pain characteristic information. [10]

McGill Pain Questionnaire (MPQ)

- The **MPQ** is a patient-reported assessment of sensory, affective, and evaluative aspects of pain. The questionnaire contains words of various descriptive qualities from which patients select to categorize their pain. The questionnaire also consists of a body illustration allowing patients to identify the location of their pain. A shorter version of the MPQ, known as the Short Form-McGill Pain Questionnaire (**SF-MPQ**), is also available. The instructions for the SF-MPQ are similar to the MPQ; however, the short form consists of fewer pain descriptor words.

Functional assessment scales

Assessing functionality is equally as important as assessing pain. The practitioner may initiate this conversation by asking the patient how the addition of an opioid would improve functionality and quality of life.

Determining the level at which pain interferes with a patient's daily activities through the use of questionnaires is a way to quantifiably assess functionality. The results obtained by this assessment allow the practitioner to correlate this information with reported pain intensity as changes occur over time. [11]

Oswestry Disability Index (ODI)

- The **ODI** is a validated, self-administered questionnaire assessing 10 activities of daily living. Each section consists of 6 statements correlating to scores of zero through five, with five representing the greatest disability. To calculate the index, the healthcare provider sums the statement scores, then divides the total statement score by the total possible score, and finally multiplies by 100 to obtain a percentage. The score categories are minimal disability (0% to 20%), moderate disability (21% to 40%), severe disability (41% to 60%), crippled (61% to 80%), and bed-bound or exaggerating symptoms (81% to 100%). To help reduce the potential for mathematical error12, a free **ODI calculator** is available online. Lastly, the ODI is considered the gold standard for assessing low back pain. [13]

Roland-Morris Disability Questionnaire (RMDQ)

- The **RMDQ** is an alternative screening tool developed to assess low back pain. This 24-item questionnaire has been validated for use in multiple languages. The tool may be administered as a self-report instrument or in interview format. The RMDQ is designed to identify only the reported functional areas adversely affected by pain. The healthcare provider adds the number of functional areas identified by the patient, which can range from zero to 24. The numerical result is not assigned a category descriptor (i.e., low, moderate, severe). Interpretation of clinical improvement results from analyzing questionnaire scores over time, with lower numerical scores representing improved functionality. [14]

Functional and pain assessment scales

The brief validated tools below are used to assess function and pain simultaneously.

Two-item graded chronic pain scale

- This **two-item scale** is a shorter version of the graded chronic pain scale, and is designed for use in the primary care setting to assess pain and functionality within the past month. This scale may be administered as a self-report instrument or in interview format. [11]

Pain, Enjoyment, General Activity (PEG) assessment scale

- The **PEG** assessment scale is a three-item scale assessing both pain intensity and functionality. The scale is available for self-administration or interview-administration. [15,16]

The PCM should also verify current and past medications (including prior opioid use to determine opioid tolerance), confirm allergies, obtain a family history, and review medical conditions including disabilities. [9] Acquiring the details of the patient's history provides an opportunity for the PCM to establish rapport with the patient, thus enhancing the provider-patient relationship.

Psychosocial history

Pain assessments should include a psychosocial history. The healthcare provider should interview the patient about alcohol, drug, and tobacco use, as well as the presence or history of mental health and psychiatric comorbidities. The healthcare provider should also inquire if the pain interferes with fulfilling work, school, or home obligations. [9]

Numerous instruments assessing psychosocial history are discussed in the Clinical Practice Guideline for Opioid Use Disorder in the Primary Care Setting. Refer to this guideline for detailed information describing these instruments.

Physical examination

A physical examination should be conducted prior to initiating pain therapy to determine baseline function and pain. The physical examination should include direct examination of the painful site, a neurological examination, and examination of the musculoskeletal area in question. [9] Information obtained from the history and physical examination should guide the PCM in the need for ordering additional laboratory studies, imaging, and diagnostic tests.

Treatment plan

The PCM should discuss clinical findings and diagnosis with the patient. The treatment plan should include the patient's preferences, and should be developed around improving pain and function as well as enhancing coping skills. The PCM and patient should discuss treatment options, side effects, expectations, realistic outcomes, establish treatment goals, re-evaluation frequency, and discontinuation of ineffective therapies if risks outweigh benefits. [2,9]

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