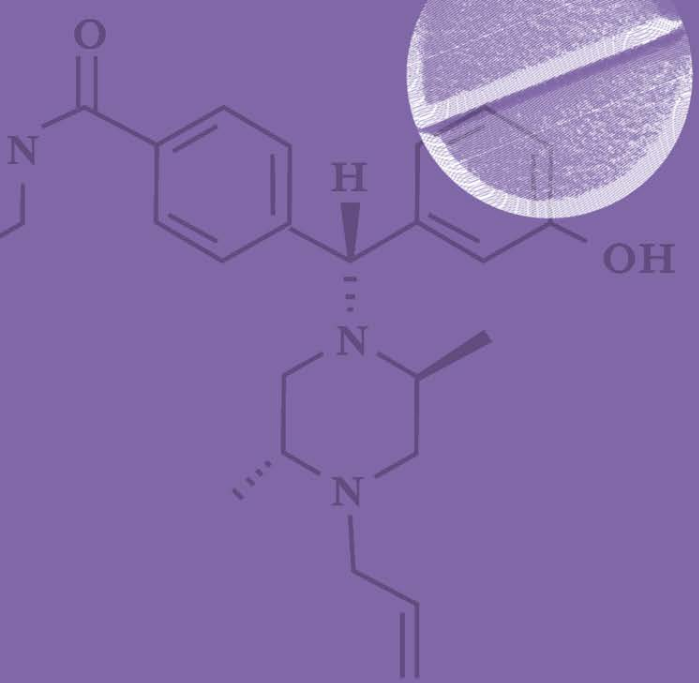
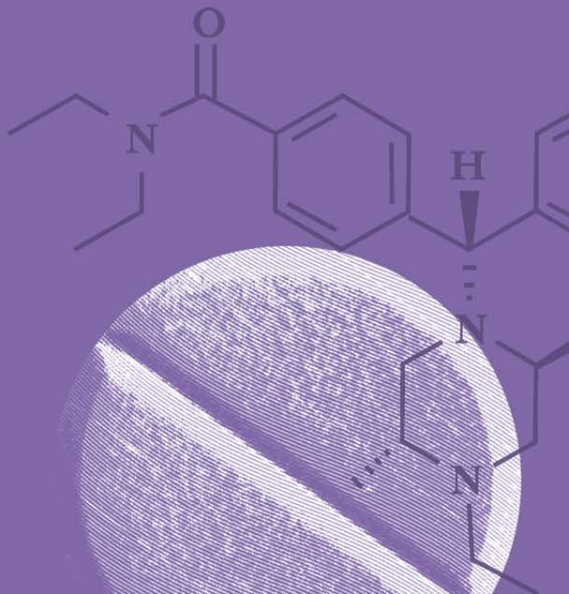
CDC Guideline for Prescribing Opioids for Chronic Pain



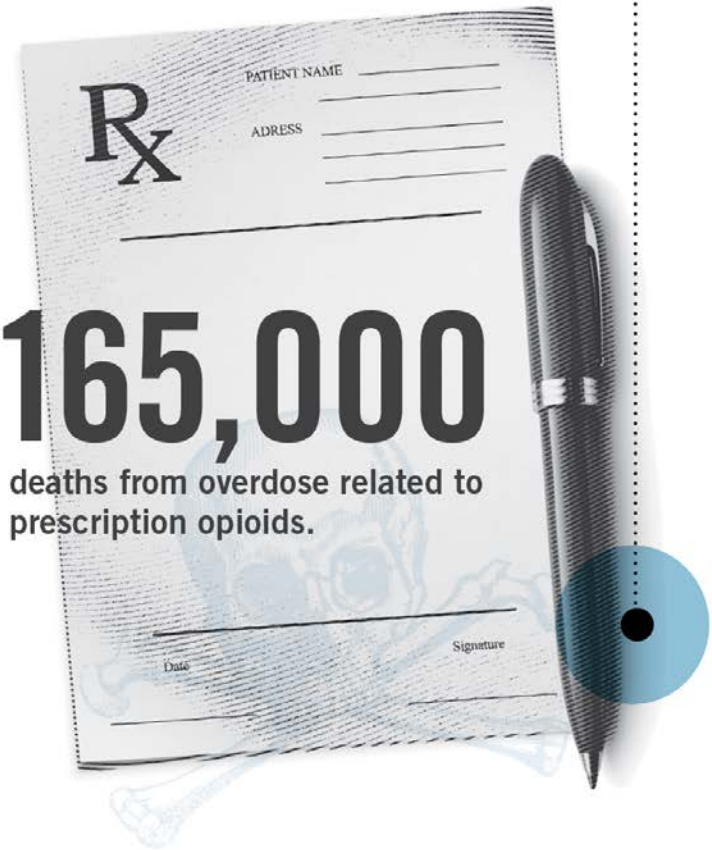
The Epidemic



Chronic Pain and Prescription Opioids

- 11% of Americans experience daily (chronic) pain
- Opioids frequently prescribed for chronic pain
- Primary care providers commonly treat chronic, non-cancer pain
  - account for ~50% of opioid pain medications dispensed
  - report concern about opioids and insufficient training

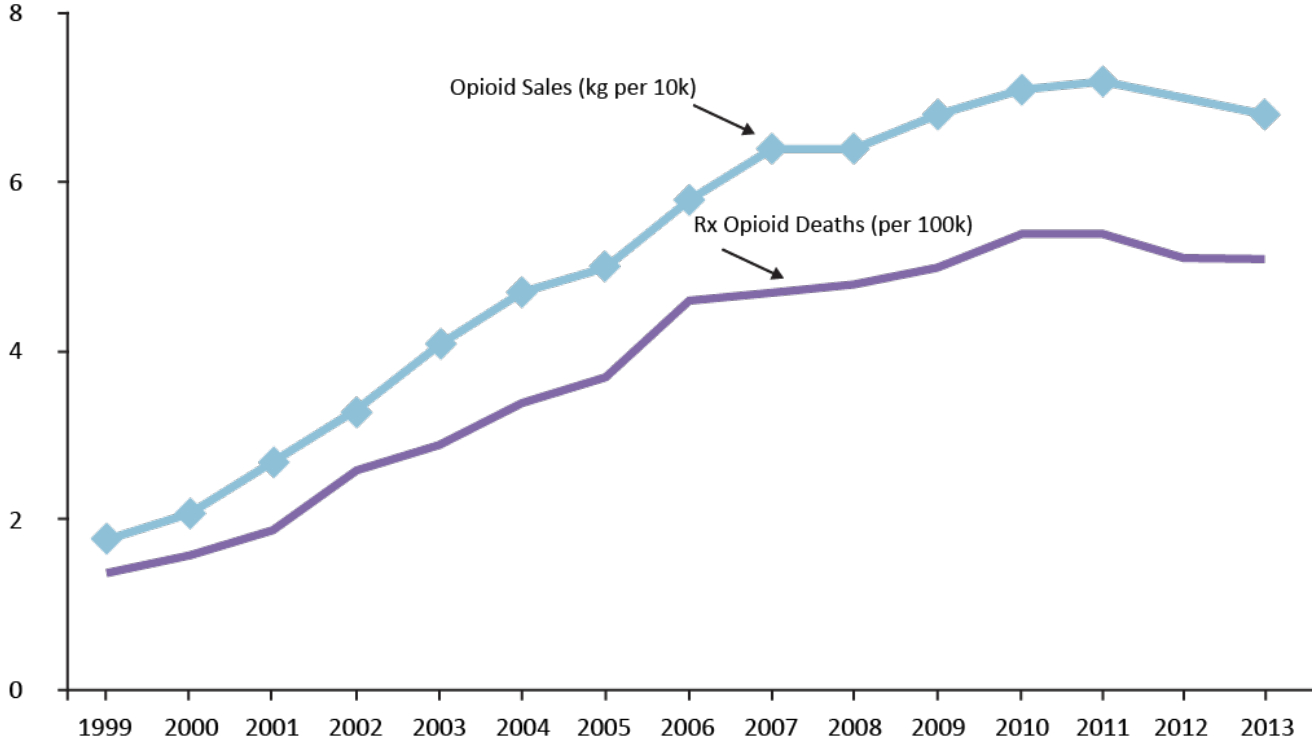
Since 1999, there have been more than



165,000

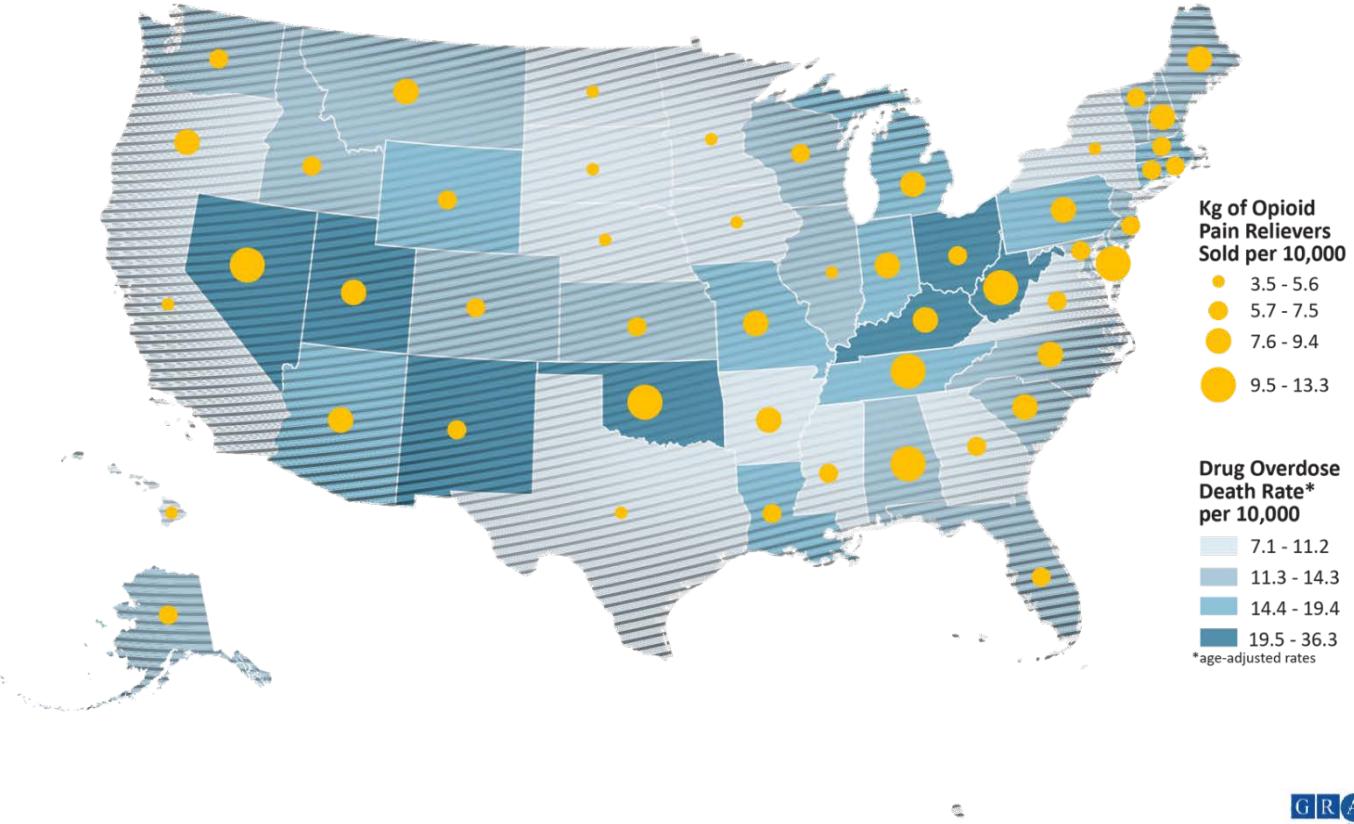
deaths from overdose related to prescription opioids.

Sharp Increase in Opioid Prescriptions ➡ Increase in Deaths



National Vital Statistics System, DEA's Automation of Reports and Consolidated Orders System

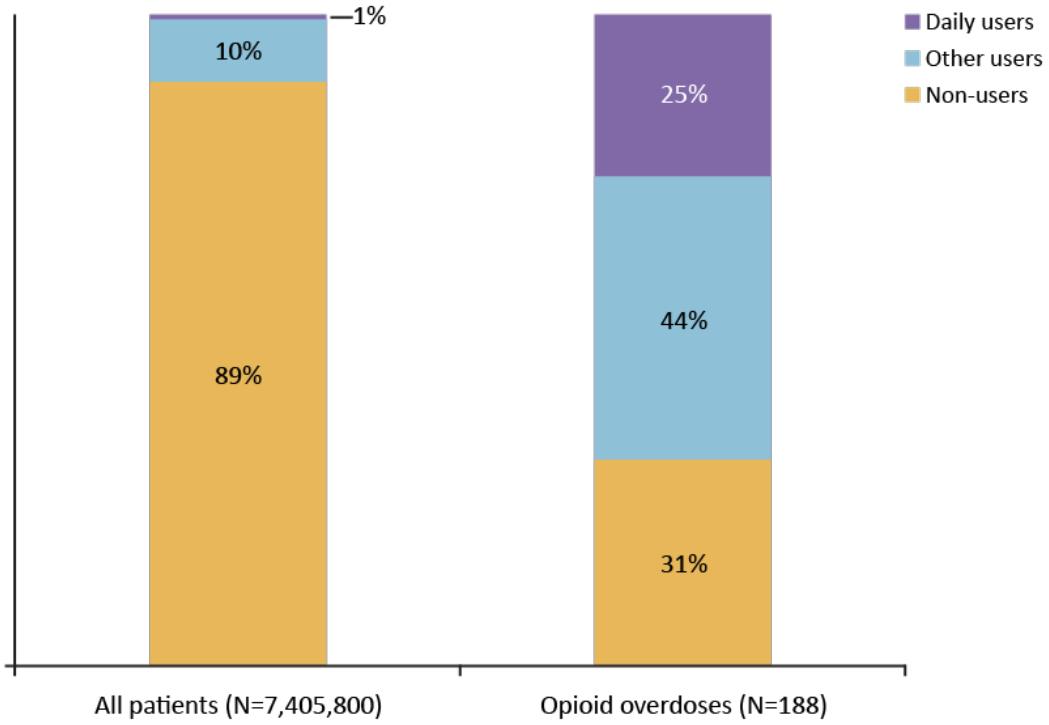
Role of Prescribing Opioids and Overdose Deaths



GRASP

- Americans, aged 12 or older, either abused or were dependent on prescription opioids in 2014.

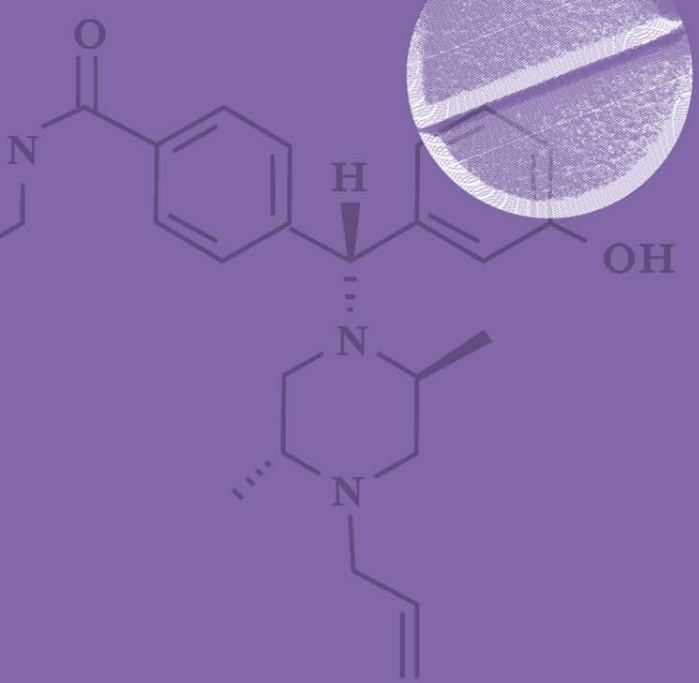
Risk of opioid-related overdose increases with daily use



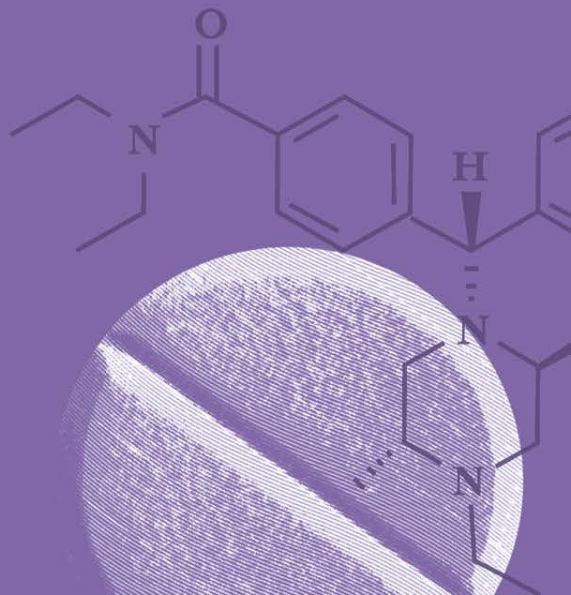
Paulozzi et al. Risk of adverse health ouycomes with increasing duration and regularity of opioid therapy. J Am Board Fam Med. 2014 May-Jun;27(3):329-38

Need for Opioid Prescribing Guidelines

- Previous opioid prescribing guidelines have been developed by several states and agencies but were **inconsistent**
- Most recent national guidelines are **several years old** and don't incorporate the most recent evidence
- Need for **clear, consistent** recommendations



Guideline for Prescribing Opioids for Chronic Pain



Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Recommendations and Reports / Vol. 65 / No. 1
March 18, 2016

CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016

Continuing Education Examination available at http://www.cdc.gov/mmwr/cme/conted.html.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Clinical Review & Education

Special Communication

CDC Guideline for Prescribing Opioids for Chronic Pain—United States, 2016

Deborah Dowell, MD, MPH; Tamara M. Haegerich, PhD; Roger Chou, MD

IMPORTANCE Primary care clinicians find managing chronic pain challenging. Evidence of long-term efficacy of opioids for chronic pain is limited. Opioid use is associated with serious risks, including opioid use disorder and overdose.

OBJECTIVE To provide recommendations about opioid prescribing for primary care clinicians treating adult patients with chronic pain outside of active cancer treatment, palliative care, and end-of-life care.

PROCESS The Centers for Disease Control and Prevention (CDC) updated a 2014 systematic review on effectiveness and risks of opioids and conducted a supplemental review on benefits and harms, values and preferences, and costs. CDC used the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) framework to assess evidence type and determine the recommendation category.

EVIDENCE SYNTHESIS Evidence consisted of observational studies or randomized clinical trials with notable limitations, characterized as low quality using GRADE methodology. Meta-analysis was not attempted due to the limited number of studies, variability in study designs and clinical heterogeneity, and methodological shortcomings of studies. No study evaluated long-term (≥1 year) benefit of opioids for chronic pain. Opioids were associated with increased risks, including opioid use disorder, overdose, and death, with dose-dependent effects.

RECOMMENDATIONS There are 12 recommendations. Of primary importance, nonopioid therapy is preferred for treatment of chronic pain. Opioids should be used only when benefits for pain and function are expected to outweigh risks. Before starting opioids, clinicians should establish treatment goals with patients and consider how opioids will be discontinued if benefits do not outweigh risks. When opioids are used, clinicians should prescribe the lowest effective dosage, carefully reassess benefits and risks when considering increasing dosage to 50 morphine milligram equivalents or more per day, and avoid concurrent opioids and benzodiazepines whenever possible. Clinicians should evaluate benefits and harms of continued opioid therapy with patients every 3 months or more frequently and review prescription drug monitoring program data, when available, for high-risk combinations or dosages. For patients with opioid use disorder, clinicians should offer or arrange evidence-based treatment, such as medication-assisted treatment with buprenorphine or methadone.

CONCLUSIONS AND RELEVANCE The guideline is intended to improve communication about benefits and risks of opioids for chronic pain, improve safety and effectiveness of pain treatment, and reduce risks associated with long-term opioid therapy.

Editorials
Author Audio Interview at jama.com
Related articles and JAMA Patient Page
Supplemental content at jama.com
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JAMA: The Journal of American Medical Association

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JAMA®
The Journal of the American Medical Association

Purpose, Use, and Primary Audience

- Primary Care Providers
  - Family medicine, Internal medicine
  - Physicians, nurse practitioners, physician assistants
- Treating patients ≥18 years with chronic pain
  - Pain longer than 3 months or past time of normal tissue healing
- Outpatient settings
- Does not include active cancer treatment, palliative care, and end-of-life care

GRADE Method

- Standard for guideline development
- Transparent approach for conducting systematic review, rating quality of evidence, and determining strength of recommendations
- Used by > 100 organizations (including Advisory Committee on Immunization Practices)
- Recommendations based on:
  - Quality of evidence
  - Balance between benefits and harms
  - Values and preferences
  - Cost

GRADE Evidence Types

- Evidence Types:
  - Type 1: Randomized controlled trials (RCTs); overwhelming observational studies
  - Type 2: RCTs (limitations); strong observational
  - Type 3: RCTs (notable limitations); observational
  - Type 4: RCTs (major limitations); observational (notable limitations) clinical experience

GRADE Recommendation Categories

- Recommendation categories:
  - Category A: applies to all patients; most patients should receive recommended course of action
  - Category B: individual decision making required; providers help patients arrive at decision consistent with values/preferences and clinical situation

Clinical Evidence Review

- 2014 AHRQ sponsored review for NIH Pathways to Prevention
- Updated searches through 2015
- Review of effectiveness of long-term opioid therapy
- Key Questions addressed
  - Effectiveness and comparative effectiveness
  - Harms and adverse events
  - Dosing strategies
  - Risk mitigation strategies
  - Effect of opioid use for acute pain on long-term use

Clinical Evidence Summary

- No long-term (≥ 1 year) outcomes in pain/function; most placebo-controlled trials ≤ 6 weeks
- Opioid dependence in primary care: 3%-26%
- Dose-dependent association with risk of overdose/harms
- Inconsistent results for different dosing protocols; initiation with LA/ER increased risk of overdose
- Methadone associated with higher mortality risk
- No differences in pain/function with dose escalation
- Risk prediction instruments have insufficient accuracy for classification of patients
- Increased likelihood of long-term use when opioids used for acute pain

Contextual Evidence Review

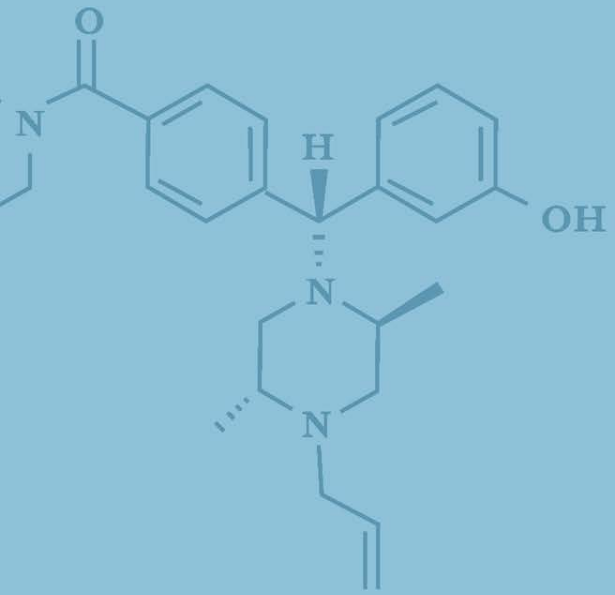
- CDC conducted additional review to assess:
  - Benefits and harms associated with opioid therapy
  - Values and preferences of providers and patients
  - Resource allocation (costs)
  - Effectiveness of non-pharmacologic and non-opioid pharmacologic therapies

Contextual Evidence Summary

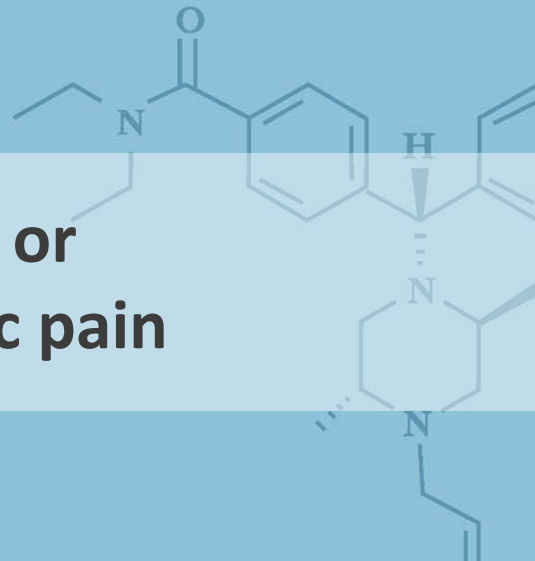
- Effective nonpharmacologic therapies: exercise, cognitive behavioral therapy (CBT), interventional procedures
- Effective nonopioid medications: acetaminophen, nonsteroidal anti-inflammatory drugs (NSAIDs), anticonvulsants, antidepressants
- Opioid-related overdose risk is dose-dependent
- Factors that increase risk for harm: pregnancy, older age, mental health disorder, substance use disorder, sleep-disordered breathing
- Providers lack confidence in ability to prescribe safely and are concerned about opioid use disorder
- Patients are ambivalent about risks/benefits and associate opioids with addiction

Organization of Recommendations

- **The 12 recommendations are grouped into three conceptual areas:**
  - 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



Determine when to initiate or continue opioids for chronic pain



Recommendation #1

1

- Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain.
- Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient.
- If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.

(Recommendation category A: Evidence type: 3)

Opioids not first-line or routine therapy for chronic pain

- Use nonpharmacologic therapy such as exercise or cognitive behavioral therapy (CBT) to reduce pain and improve function.
- Use nonopioid pharmacologic therapy (nonsteroidal anti-inflammatory drugs, acetaminophen, anticonvulsants, certain antidepressants) when benefits outweigh risks, combined with nonpharmacologic therapy.
- When opioids used, combine with nonpharmacologic therapy and nonopioid pharmacologic therapy to provide greater benefits.

Recommendation #2

2

- Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how therapy will be discontinued if benefits do not outweigh risks.
- Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.

(Recommendation category A: Evidence type: 4)

Establish and measure progress toward goals

- Before initiating opioid therapy for chronic pain
  - Determine how effectiveness will be evaluated.
  - Establish treatment goals with patients.
    - Pain relief
    - Function
- Assess progress using 3-item PEG Assessment Scale*
  - Pain average (0-10)
  - Interference with Enjoyment of life (0-10)
  - Interference with General activity (0-10)

*30% = clinically meaningful improvement

Recommendation #3

3

- Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

(Recommendation category A: Evidence type: 3)

Ensure patients are aware of potential benefits, harms, and alternatives to opioids

- Be explicit and realistic about expected benefits.
- Emphasize goal of improvement in pain and function.
- Discuss
  - serious and common adverse effects
  - increased risks of overdose
    - at higher dosages
    - when opioids are taken with other drugs or alcohol
  - periodic reassessment, PDMP and urine checks; and
  - risks to family members and individuals in the community.

Opioid selection, dosage, duration, follow-up, and discontinuation

Recommendation #4

4

- When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.

(Recommendation category A: Evidence type: 4)

Choose predictable pharmacokinetics and pharmacodynamics to minimize overdose risk

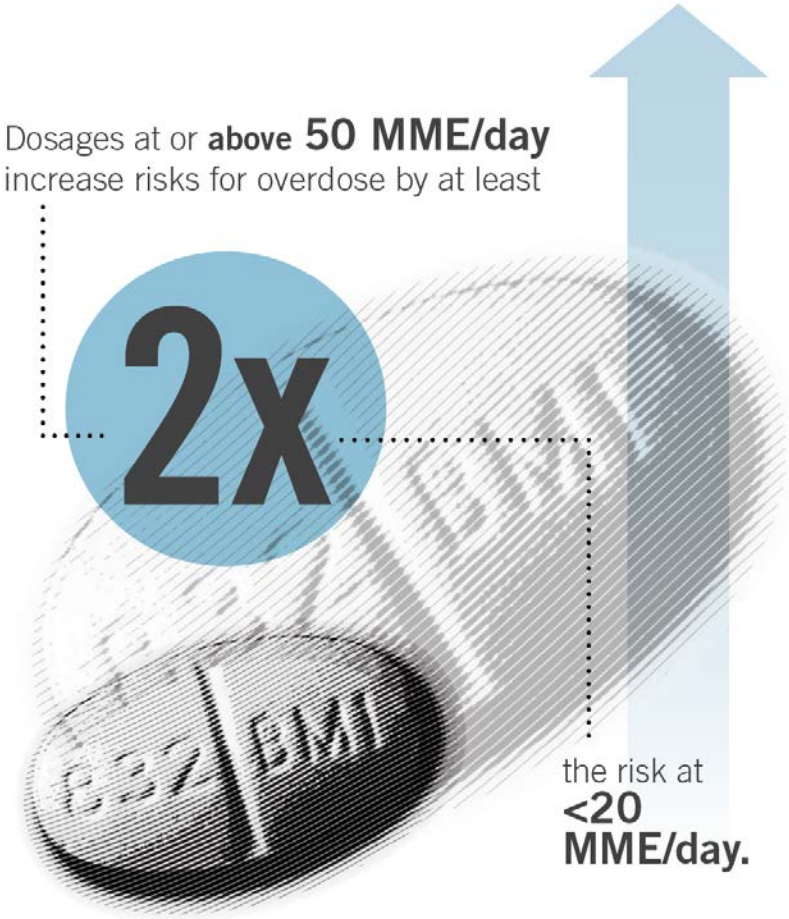
- In general, avoid the use of immediate-release opioids combined with ER/LA opioids.
- Methadone should not be the first choice for an ER/LA opioid.
  - Only providers familiar with methadone's unique risk and who are prepared to educate and closely monitor their patients should consider prescribing it for pain.
- Only consider prescribing transdermal fentanyl if familiar with the dosing and absorption properties and prepared to educate patients about its use.

Recommendation #5

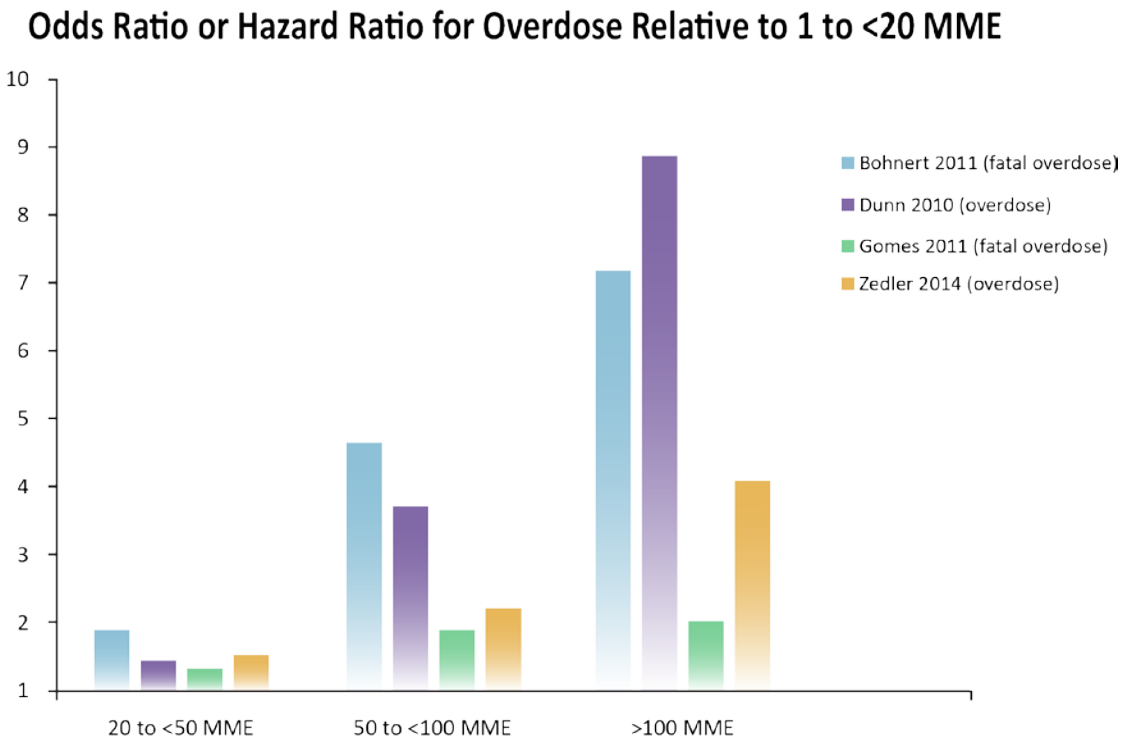
5

- When opioids are started, clinicians should prescribe the lowest effective dosage.
- Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day.

(Recommendation category A: Evidence type: 3)


Dosages at or **above 50 MME/day**
increase risks for overdose by at least
2x
the risk at
<20
MME/day.

Relationship of prescribed opioid dose (MME) and overdose



Start low and go slow

- Start with lowest effective dosage and increase by the smallest practical amount.
- If total opioid dosage ≥50 MME/day
  - reassess pain, function, and treatment
  - increase frequency of follow-up; and
  - consider offering naloxone.
- Avoid increasing opioid dosages to ≥90 MME/day.
- If escalating dosage requirements
  - discuss other pain therapies with the patient
  - consider working with the patient to taper opioids down or off
  - consider consulting a pain specialist.

If patient is already receiving a high dosage

- Offer established patients already taking ≥90 MME/day the opportunity to re-evaluate their continued use of high opioid dosages in light of recent evidence regarding the association of opioid dosage and overdose risk.
- For patients who agree to taper opioids to lower dosages, collaborate with the patient on a tapering plan.

Recommendation #6

6

- Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids.
- 3 days or less will often be sufficient; more than 7 days will rarely be needed.

(Recommendation category A: Evidence type: 4)

When opioids are needed for acute pain

- Prescribe the lowest effective dose.
- Prescribe amount to match the expected duration of pain severe enough to require opioids.
- Often ≤ 3 days and rarely more than 7 days needed.
- Do not prescribe additional opioids “just in case”.
- Re-evaluate patients with severe acute pain that continues longer than the expected duration to confirm or revise the initial diagnosis and to adjust management accordingly.
- Do not prescribe ER/LA opioids for acute pain treatment.

Recommendation #7

7

- Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation.
- Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently.
- If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.

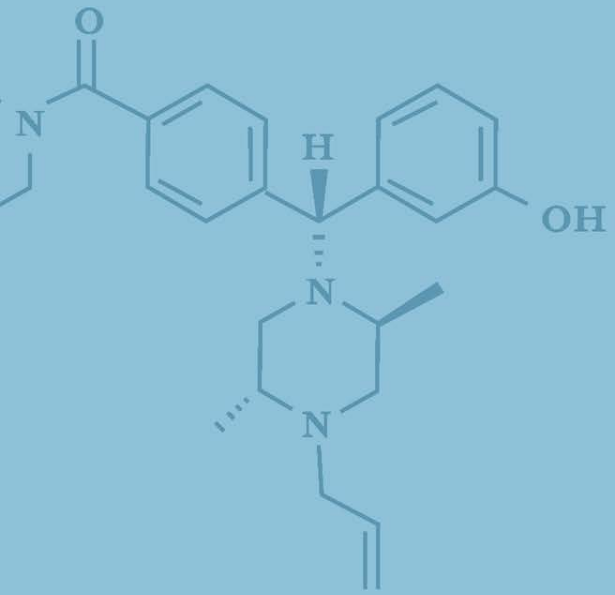
(Recommendation category A: Evidence type: 4)

Follow-up

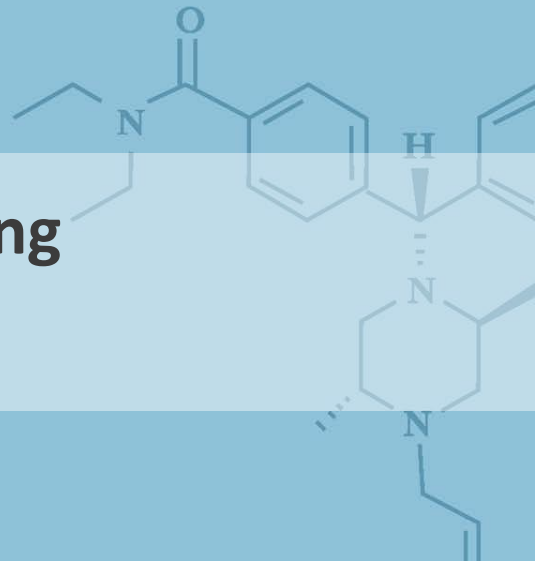
- Re-evaluate patients
  - within 1-4 weeks of starting long-term therapy or of dosage increase
  - at least every 3 months or more frequently.
- At follow up, determine whether
  - opioids continue to meet treatment goals
  - there are common or serious adverse events or early warning signs
  - benefits of opioids continue to outweigh risks
  - opioid dosage can be reduced or opioids can be discontinued.

Tapering Opioids

- Work with patients to taper opioids down or off when
  - no sustained clinically meaningful improvement in pain and function
  - opioid dosages ≥50 MME/day without evidence of benefit
  - concurrent benzodiazepines that can't be tapered off
  - patients request dosage reduction or discontinuation
  - patients experience overdose, other serious adverse events, warning signs.
- Taper slowly enough to minimize opioid withdrawal
  - A decrease of 10% per week is a reasonable starting point
- Access appropriate expertise for tapering during pregnancy
- Optimize nonopioid pain management and psychosocial support



Assessing risk and addressing harms of opioid use



Recommendation #8

8

- Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms.
- Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent benzodiazepine use, are present.

(Recommendation category A: Evidence type: 4)

Certain factors increase risks for opioid-associated harms

- Avoid prescribing opioids to patients with moderate or severe sleep-disordered breathing when possible.
- During pregnancy, carefully weigh risks and benefits with patients.
- Use additional caution with renal or hepatic insufficiency, aged ≥65 years.
- Ensure treatment for depression is optimized.
- Consider offering naloxone when patients
  - have a history of overdose
  - have a history of substance use disorder
  - are taking central nervous system depressants with opioids
  - are on higher dosages of opioids (≥ 50 MME/day).

Recommendation #9

- Clinicians should review the patient's history of controlled substance prescriptions using state PDMP data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him/her at high risk for overdose.
- Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.

(Recommendation category A: Evidence type: 4)

If prescriptions from multiple sources, high dosages, or dangerous combinations

- Discuss safety concerns with patient (and any other prescribers they may have), including increased risk for overdose.
- For patients receiving high total opioid dosages, consider tapering to a safer dosage, consider offering naloxone.
- Consider opioid use disorder and discuss concerns with your patient.
- If you suspect your patient might be sharing or selling opioids and not taking them, consider urine drug testing to assist in determining whether opioids can be discontinued without causing withdrawal.
- Do not dismiss patients from care—use the opportunity to provide potentially lifesaving information and interventions.

Recommendation #10

10

- When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.

(Recommendation category B: Evidence type: 4)

Use UDT to assess for prescribed opioids and other drugs that increase risk

- Be familiar with urine drug testing panels and how to interpret results.
- Don’t test for substances that wouldn’t affect patient management.
- Before ordering urine drug testing
  - explain to patients that testing is intended to improve their safety
  - explain expected results; and
  - ask patients whether there might be unexpected results.
- Discuss unexpected results with local lab and patients.
- Verify unexpected, unexplained results using specific test.
- Do not dismiss patients from care based on a urine drug test result.

Recommendation #11

11

- Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.

(Recommendation category A: Evidence type: 3)

Avoid concurrent opioids and benzodiazepines whenever possible

- Taper benzodiazepines gradually.
- Offer evidence-based psychotherapies for anxiety.
  - cognitive behavioral therapy
  - specific anti-depressants approved for anxiety
  - other non-benzodiazepine medications approved for anxiety
- Coordinate care with mental health professionals.

Recommendation #12

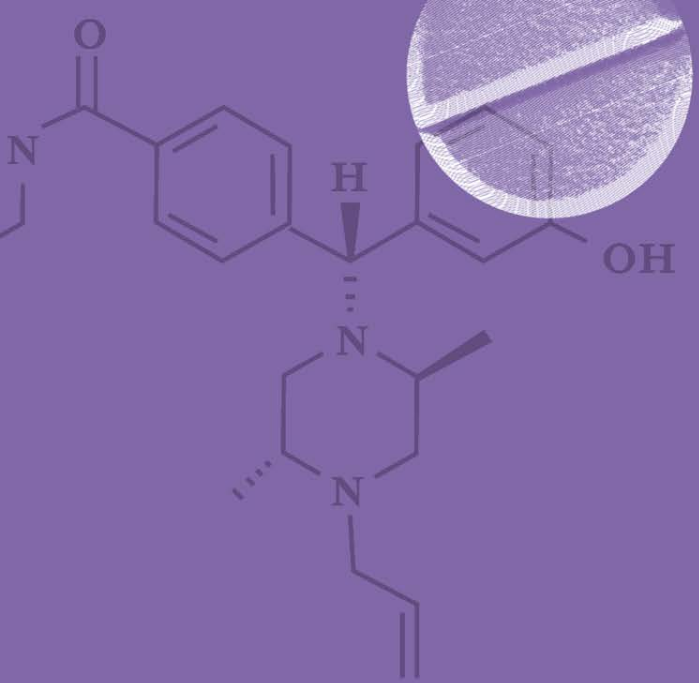
12

- Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.

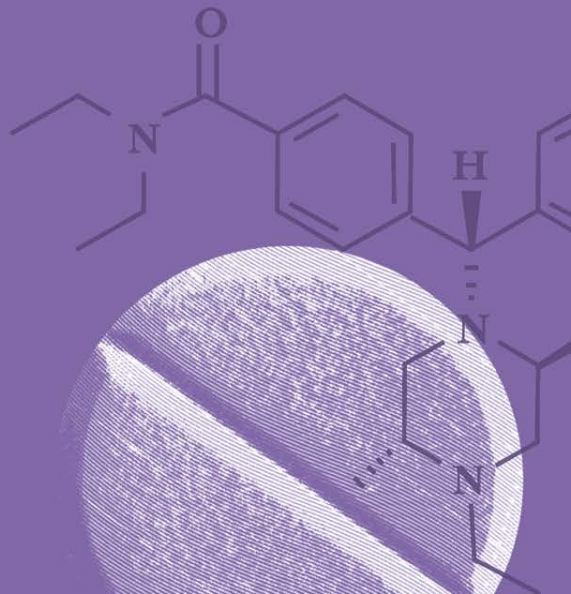
(Recommendation category A: Evidence type: 2)

If you suspect opioid use disorder (OUD)

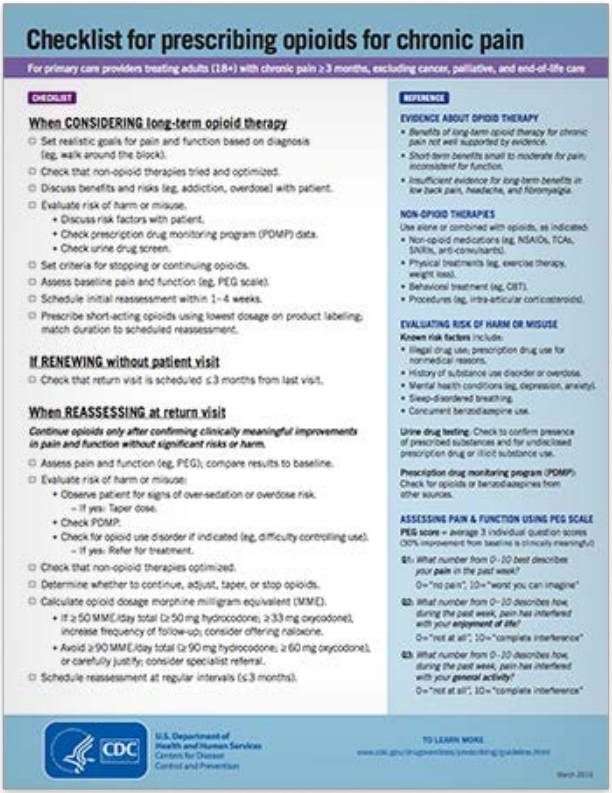
- Discuss with your patient and provide an opportunity to disclose concerns.
- Assess for OUD using DSM-5 criteria. If present, offer or arrange MAT.
  - Buprenorphine through an office-based buprenorphine treatment provider or an opioid treatment program specialist
  - Methadone maintenance therapy from an opioid treatment program specialist
  - Oral or long-acting injectable formulations of naltrexone (for highly motivated non-pregnant adults)
- Consider obtaining a waiver to prescribe buprenorphine for OUD (see http://www.samhsa.gov/medication-assisted-treatment/buprenorphine-waiver-management)



Tool and Resources



Tools and Materials



Checklist for prescribing opioids for chronic pain

For primary care providers treating adults (18+) with chronic pain ≥ 3 months, excluding cancer, palliative, and end-of-life care

CHECKLIST

When CONSIDERING long-term opioid therapy

- ☐ Set realistic goals for pain and function based on diagnosis (eg, walk around the block).
- ☐ Check that non-opioid therapies tried and optimized.
- ☐ Discuss benefits and risks (eg, addiction, overdose) with patient.
- ☐ Evaluate risk of harm or misuse.
  - Discuss risk factors with patient.
  - Check prescription drug monitoring program (PDMP) data.
  - Check urine drug screen.
- ☐ Set criteria for stopping or continuing opioids.
- ☐ Assess baseline pain and function (eg, PEG scale).
- ☐ Schedule initial reassessment within 1–4 weeks.
- ☐ Prescribe short-acting opioids using lowest dosage on product labeling; match duration to scheduled reassessment.

If RENEWING without patient visit

- ☐ Check that return visit is scheduled ≤3 months from last visit.

When REASSESSING at return visit

Continue opioids only after confirming clinically meaningful improvements in pain and function without significant risks or harm.

- ☐ Assess pain and function (eg, PEG); compare results to baseline.
- ☐ Evaluate risk of harm or misuse:
  - Observe patient for signs of over-sedation or overdose risk.
    - If yes: Taper dose.
  - Check PDMP.
  - Check for opioid use disorder if indicated (eg, difficulty controlling use).
    - If yes: Refer for treatment.
- ☐ Check that non-opioid therapies optimized.
- ☐ Determine whether to continue, adjust, taper, or stop opioids.
- ☐ Calculate opioid dosage morphine milligram equivalent (MME).
  - If ≥ 50 MME/day total (≥ 50 mg hydrocodone; ≥ 33 mg oxycodone), increase frequency of follow-up; consider offering naloxone.
  - Avoid ≥ 90 MME/day total (≥ 90 mg hydrocodone; ≥ 60 mg oxycodone), or carefully justify; consider specialist referral.
- ☐ Schedule reassessment at regular intervals (≤3 months).

REFERENCE

EVIDENCE ABOUT OPIOID THERAPY

- *Benefits of long-term opioid therapy for chronic pain not well supported by evidence.*
- *Short-term benefits small to moderate for pain; inconsistent for function.*
- *Insufficient evidence for long-term benefits in low back pain, headache, and fibromyalgia.*

NON-OPIOID THERAPIES

Use alone or combined with opioids, as indicated:

- Non-opioid medications (eg, NSAIDs, TCAs, SNRIs, anti-convulsants).
- Physical treatments (eg, exercise therapy, weight loss).
- Behavioral treatment (eg, CBT).
- Procedures (eg, intra-articular corticosteroids).

EVALUATING RISK OF HARM OR MISUSE

Known risk factors include:

- Illegal drug use; prescription drug use for non-medical reasons.
- History of substance use disorder or overdose.
- Mental health conditions (eg, depression, anxiety).
- Sleep-disordered breathing.
- Concurrent benzodiazepine use.

Urine drug testing: Check to confirm presence of prescribed substances and for undisclosed prescription drug or illicit substance use.

Prescription drug monitoring program (PDMP): Check for opioids or benzodiazepines from other sources.

ASSESSING PAIN & FUNCTION USING PEG SCALE

PEG score = average 3 individual question scores (30% improvement from baseline is clinically meaningful)

Q1: *What number from 0–10 best describes your pain in the past week?*
0="no pain", 10="worst you can imagine"

Q2: *What number from 0–10 describes how, during the past week, pain has interfered with your enjoyment of life?*
0="not at all", 10="complete interference"

Q3: *What number from 0–10 describes how, during the past week, pain has interfered with your general activity?*
0="not at all", 10="complete interference"

CDC

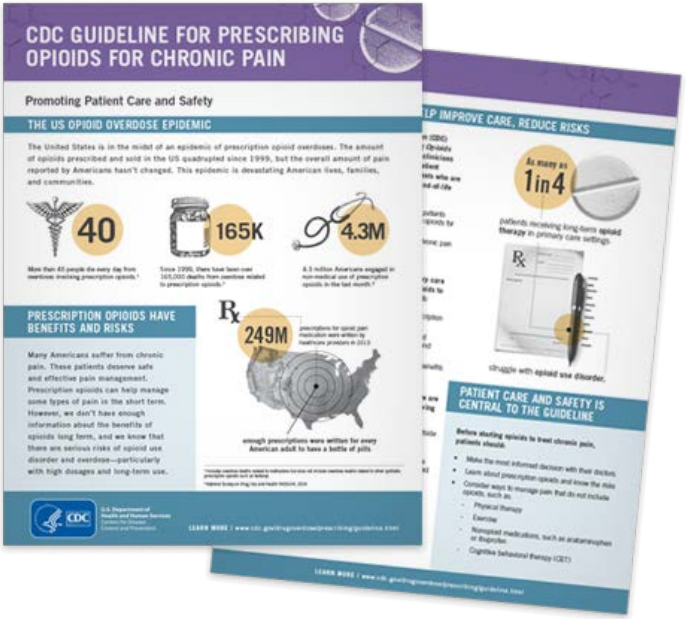
U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

TO LEARN MORE
www.cdc.gov/drugoverdose/prescribing/guideline.html

March 2016

- Provider and patient materials
  - Checklist for prescribing opioids for chronic pain
  - Fact sheets
  - Posters
  - Web banners and badges
  - Social media web buttons and infographics
- CDC Opioid Overdose Website
  www.cdc.gov/drugoverdose/index.html

Training and Resources



- COCA Call Webinar Series
- Fact sheets
  - New Opioid Prescribing Guideline
  - Assessing Benefits and Harms of Opioid Therapy
  - Prescription Drug Monitoring Programs
  - Calculating Total Daily Dose of Opioids for Safer Prescribing
  - Pregnancy and Opioid Pain Medications

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.