Promoting Patient Care and Safety

THE US OPIOID OVERDOSE EPIDEMIC

The United States is in the midst of an epidemic of prescription opioid overdoses. The amount of opioids prescribed and sold in the US quadrupled since 1999, but the overall amount of pain reported by Americans hasn’t changed. This epidemic is devastating American lives, families, and communities.

- More than 40 people die every day from overdoses involving prescription opioids.¹
- Since 1999, there have been over 165,000 deaths from overdose related to prescription opioids.¹
- 4.3 million Americans engaged in non-medical use of prescription opioids in the last month.²

PRESCRIPTION OPIOIDS HAVE BENEFITS AND RISKS

Many Americans suffer from chronic pain. These patients deserve safe and effective pain management. Prescription opioids can help manage some types of pain in the short term. However, we don’t have enough information about the benefits of opioids long term, and we know that there are serious risks of opioid use disorder and overdose—particularly with high dosages and long-term use.

¹ Includes overdose deaths related to methadone but does not include overdose deaths related to other synthetic prescription opioids such as fentanyl.
² National Survey on Drug Use and Health (NSDUH), 2014
### WHY GUIDELINES FOR PRIMARY CARE PROVIDERS?

- Primary care providers account for approximately 50% of prescription opioids dispensed.
- Nearly 2 million Americans, aged 12 or older, either abused or were dependent on prescription opioids in 2014.
- An estimated 11% of adults experience daily pain.
- Millions of Americans are treated with prescription opioids for chronic pain.
- Primary care providers are concerned about patient addiction and report insufficient training in prescribing opioids.

### MYTH VS TRUTH

1. **Opioids are effective long-term treatments for chronic pain**
   - **MYTH**: While evidence supports short-term effectiveness of opioids, there is insufficient evidence that opioids control chronic pain effectively over the long term, and there is evidence that other treatments can be effective with less harm.
   - **TRUTH**: Daily opioid dosages close to or greater than 90 MME/day are associated with significant risks, and lower dosages are safer.

2. **There is no unsafe dose of opioids as long as opioids are titrated slowly**
   - **MYTH**: Daily opioid dosages close to or greater than 90 MME/day are associated with significant risks, and lower dosages are safer.
   - **TRUTH**: Up to one quarter of patients receiving prescription opioids long term in a primary care setting struggles with addiction. Certain risk factors increase susceptibility to opioid-associated harms: history of overdose, history of substance use disorder, higher opioid dosages, or concurrent benzodiazepine use.

3. **The risk of addiction is minimal**
   - **MYTH**: The risk of addiction is minimal.
   - **TRUTH**: The risk of addiction is minimal.

### WHAT CAN PROVIDERS DO?

- **First, do no harm.** Long-term opioid use has uncertain benefits but known, serious risks. CDC’s *Guideline for Prescribing Opioids for Chronic Pain* will support informed clinical decision making, improved communication between patients and providers, and appropriate prescribing.

### PRACTICES AND ACTIONS

#### USE NONOPIOID TREATMENT

- Opioids are not first-line or routine therapy for chronic pain (Recommendation #1)
  - In a systematic review, opioids did not differ from nonopioid medication in pain reduction, and nonopioid medications were better tolerated, with greater improvements in physical function.

#### REVIEW PDMP

- Check prescription drug monitoring program data for high dosages and prescriptions from other providers (Recommendation #9)
  - A study showed patients with one or more risk factors (4 or more prescribers, 4 or more pharmacies, or dosage >100 MME/day) accounted for 55% of all overdose deaths.

#### OFFER TREATMENT FOR OPIOID USE DISORDER

- Offer or arrange evidence-based treatment (e.g. medication-assisted treatment and behavioral therapies) for patients with opioid use disorder (Recommendation #12)
  - A study showed patients prescribed high dosages of opioids long-term (>90 days) had 322 times the risk of opioid use disorder compared to patients not prescribed opioids.

#### START LOW AND GO SLOW

- When opioids are started, prescribe them at the lowest effective dose (Recommendation #5)
  - Studies show that high dosages (≥100 MME/day) are associated with 2 to 9 times the risk of overdose compared to <20 MME/day.

#### AVOID CONCURRENT PRESCRIBING

- Avoid prescribing opioids and benzodiazepines concurrently whenever possible (Recommendation #11)
  - One study found concurrent prescribing to be associated with a near quadrupling of risk for overdose death compared with opioid prescription alone.

[LEARN MORE](www.cdc.gov/drugoverdose/prescribing/guideline.html)
RECOMMENDED TREATMENTS FOR COMMON CHRONIC PAIN CONDITIONS

Low back pain

Self-care and education in all patients; advise patients to remain active and limit bedrest

Nonpharmacological treatments: Exercise, cognitive behavioral therapy, interdisciplinary rehabilitation

Medications
- First-line: acetaminophen, non-steroidal anti inflammatory drugs (NSAIDs)
- Second-line: Serotonin and norepinephrine reuptake inhibitors (SNRIs)/tricyclic antidepressants (TCAs)

Migraine

Preventive treatments
- Beta-blockers
- TCAs
- Antiseizure medications
- Calcium channel blockers
- Non-pharmacological treatments (Cognitive behavioral therapy, relaxation, biofeedback, exercise therapy)
- Avoid migraine triggers

Acute treatments
- Aspirin, acetaminophen, NSAIDs (may be combined with caffeine)
- Antinausea medication
- Triptans-migraine-specific

Fibromyalgia

Patient education: Address diagnosis, treatment, and the patient’s role in treatment

Nonpharmacological treatments: Low-impact aerobic exercise (e.g., brisk walking, swimming, water aerobics, or bicycling), cognitive behavioral therapy, biofeedback, interdisciplinary rehabilitation

Medications
- FDA-approved: Pregabalin, duloxetine, milnacipran
- Other options: TCAs, gabapentin

Medications: TCAs, SNRIs, gabapentin/pregabalin, topical lidocaine

Osteoarthritis

Nonpharmacological treatments: Exercise, weight loss, patient education

Medications
- First-line: Acetaminophen, oral NSAIDs, topical NSAIDs
- Second-line: Intra-articular hyaluronic acid, capsaicin (limited number of intra-articular glucocorticoid injections if acetaminophen and NSAIDs insufficient)

Neuropathic pain

Medications: TCAs, SNRIs, gabapentin/pregabalin, topical lidocaine
CALCULATING TOTAL DAILY DOSE OF OPIOIDS FOR SAFER DOSAGE

Higher Dosage, Higher Risk.

Higher dosages of opioids are associated with higher risk of overdose and death—even relatively low dosages (20-50 morphine milligram equivalents (MME) per day) increase risk. Higher dosages haven’t been shown to reduce pain over the long term. One randomized trial found no difference in pain or function between a more liberal opioid dose escalation strategy (with average final dosage 52 MME) and maintenance of current dosage (average final dosage 40 MME).

**WHY IS IT IMPORTANT TO CALCULATE THE TOTAL DAILY DOSAGE OF OPIOIDS?**

Patients prescribed higher opioid dosages are at higher risk of overdose death.

In a national sample of Veterans Health Administration (VHA) patients with chronic pain receiving opioids from 2004–2009, patients who died of opioid overdose were prescribed an average of 98 MME/day, while other patients were prescribed an average of 48 MME/day.

Calculating the total daily dose of opioids helps identify patients who may benefit from closer monitoring, reduction or tapering of opioids, prescribing of naloxone, or other measures to reduce risk of overdose.

**HOW MUCH IS 50 OR 90 MME/DAY FOR COMMONLY PRESCRIBED OPIOIDS?**

50 MME/day:
- 50 mg of hydrocodone (10 tablets of hydrocodone/acetaminophen 5/300)
- 33 mg of oxycodone (~2 tablets of oxycodone sustained-release 15 mg)
- 12 mg of methadone (~3 tablets of methadone 5 mg)

90 MME/day:
- 90 mg of hydrocodone (9 tablets of hydrocodone/acetaminophen 10/325)
- 60 mg of oxycodone (~2 tablets of oxycodone sustained-release 30 mg)
- ~20 mg of methadone (4 tablets of methadone 5 mg)

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