Improving Opioid Prescribing and Patient Safety: Educational Outreach
Overprescribing Contributes to the Opioid Epidemic

Since 1999, opioid prescribing has quadrupled with no change in the amount of pain that Americans report. *Source: CDC*

![Graph showing opioid prescribing trends]

*Age-adjusted rates per 100,000 population for OPR deaths, crude rates per 10,000 population for OPR abuse treatment admissions, and crude rates per 10,000 population for kilograms of OPR sold. *Source: CDC*

- Opioid analgesics were the most commonly prescribed class of medicine in the US in 2014. *CDC data.*
- Approximately 20% of patients presenting to medical offices with noncancer pain (acute and chronic) receive opioid prescriptions. *Daubresse, Med Care 2013;51:870-8.*
- Most placebo-controlled, randomized trials of opioids lasted 6 weeks or less. No study compared opioids versus other treatments for outcomes at greater than 1 year to include: pain, function or quality of life. *CDC Guidelines, 2016.*
- Several studies show that use of opioids for chronic pain may actually worsen pain and function. *Braden, J Pain 2012;13:64-72.*

“The science of opioids for chronic pain is clear: for the vast majority of patients, the known, serious, and too-often-fatal risks far outweigh the unproven and transient benefits.” *Freiden, NEJM 2016: 374;16:1503.*

### 2016 CDC Recommendations

1. Opioids are not first-line therapy
2. Use immediate-release opioids when starting
MMEs > 100 Have No Proven Benefit for Chronic Pain and Significant Proven Harms

The ‘number needed to kill’ for opioid doses over 200 MME is 32.


MME=morphine milligram equivalent or the ‘INR’ of opioid dosing

Common Opioid Doses

<table>
<thead>
<tr>
<th>Medication</th>
<th>tablets per day</th>
<th>MMEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaminophen-codeine 300-30mg (#3)</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Morphine IR 15 mg</td>
<td>6</td>
<td>90</td>
</tr>
<tr>
<td>Oxycodone 15 mg</td>
<td>4</td>
<td>90</td>
</tr>
<tr>
<td>Hydromorphone 4 mg</td>
<td>6</td>
<td>96</td>
</tr>
<tr>
<td>Acetaminophen-hydrocodone 325-10</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>Fentanyl patch 50 mcg</td>
<td>(1)</td>
<td>120</td>
</tr>
</tbody>
</table>

Overdose risk:

Doses of 50 MME 2x
Doses of 100 MME 9x

* compared with doses less than 20 MME, CDC Guidelines 2016

Recommended prescriber monitoring frequency:

<table>
<thead>
<tr>
<th>Opioid dose &gt; 50</th>
<th>Face-to-face visit every 90 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opioid doses &gt; 120</td>
<td>Face-to-face visit every 30 days</td>
</tr>
</tbody>
</table>

Source: CDC Guidelines, WA State Medical Directors Agency guidelines

Prescribers should “carefully justify” opioid doses in excess of 90 MME. Source: CDC

2016 CDC Recommendations

3. Discuss risks and benefits  5. Use the lowest effective dose  7. Evaluate benefits and harms frequently
Practice Transformation Is Easier with a Playbook and a Team Approach

The ‘Chronic Pain Collaborative’ gave us numerous examples of practices in Maine that greatly improved patient safety.

Maine State Law Chapter 488 and Chapter 21 require use and documentation of various mitigation strategies to reduce opioid misuse and diversion including:

- Informed consents extensively reviewed by provider and patient
- Review of the Prescription Monitoring Program on initial opioid/benzo scripts; every 90 days for recurring scripts
- Yearly urine drug screens (including correct interpretation and action with results)
- Yearly random pill counts
- Documentation of functional improvement
- Exit strategy
- Lowest effective dose (i.e. maximum of 100 MMEs)
- Shortest possible duration (i.e. 7 days or less for acute)

Quality Counts Controlled Medication Playbook

- numerous resources for assisting prescribers & staff
- Maine-developed practice guidelines
- Maine-developed informed consent documents
  - opioids
  - benzodiazepines
  - adult stimulants

www.mainequalitycounts.org/ControlledMedicationPlaybook

Other strategies to reduce risk of opioid misuse:

- Regular monitoring and reassessment
- Practice protocols that designate non-prescriber staff roles and responsibilities
- Screening tools to identify “non-reassuring” behaviors
- Increased frequency of monitoring when “non-reassuring” behaviors identified

2016 CDC Recommendations


IMPORTANT PATIENT EDUCATION POINTS

1. Store opioids in a lock box
2. Inform dangers of sharing
3. Proper disposal

Improving Opioid Prescribing and Patient Safety
Harm Reduction Includes:

- avoiding co-prescribing of opioids and benzodiazepines
- prescribing naloxone
- recognizing and treating opioid use disorder

1.5x more US residents live with a substance use disorder than all cancers combined

35% of primary care patients on opioids for chronic pain met DSM-V criteria for OUD-opioid use disorder

3-26% of primary care patients on opioids for chronic pain met DSM-IV criteria for OUD

Higher daily dose & longer treatments courses increased risk for OUD

75% of heroin users started with prescription opioids

But only 4% of nonmedical prescription opioid users initiated heroin use


NALOXONE SHOULD BE PRESCRIBED FOR:
1. all patients on chronic opioids
2. anyone at risk for experiencing or witnessing an overdose

Learn more at: mainemed.com/MICIS

Misconceptions Regarding Opioids and Addiction

- Addiction is the same as physical dependence and tolerance.
- Pain protects patients from addiction to opioid medications.
- Only long-term use of certain opioids produces addiction.
- Addiction is simply a set of bad choices.
- Only patients with certain characteristics are vulnerable to addiction.
- Medication-assisted therapies are just substitutes for heroin or opioids.

Adapted from: Volkow, NEJM 2016;374(13):1254. Used by permission.

2016 CDC Recommendations

11. Avoid concurrent opioid and benzodiazepine prescribing
12. Offer treatment for opioid use disorder
Enhancing Prescriber Communication Skills Improves Patient, Family And Community-Centered Care

Adopting a trauma informed approach and integrating behavioral medicine are keys to improving chronic pain management.

Many physicians admit they are not confident in their ability to:

- Prescribe opioids safely
- Detect abuse or emerging addiction
- Discuss opioid use issues with patients


Be prepared to answer these 5 QUESTIONS from your patients regarding using opioids for chronic pain (even if the patient doesn't ask):

1. Do I really need this test or procedure?
2. What are the risks?
3. Are there simpler, safer options?
4. What happens if I don’t do anything?
5. How much does it cost?

As many patients with chronic pain have both physical and psychological aspects to their pain, the anti-depressant and anxiolytic effects of opioids may account for patients’ perception of benefit from these medications. Tenore, J Add Dis 2008;27(3):49-65.

Provider-patient communication research over the last 30 years has shown that:

1. Adherence to a treatment plan is closely linked to patient trust and their perception that their provider knows them as a person.
2. Patient-provider communication is perhaps the most significant component of a patient’s visit.
3. Good communication is linked to increased patient satisfaction, improved clinical outcomes and decreased malpractice claims.

*the ten references for the above are available at mainemed.com/MICIS

2016 CDC Recommendations

2. Establish goals for pain and function
Many Nonopioid And Nonpharmacologic Treatments For Acute And Chronic Pain Have Good Evidence

Patients weaned off opioids generally report decreased pain and improved function. Reducing surgical overprescribing improves the safety of the family & community too.

<table>
<thead>
<tr>
<th>Surgery</th>
<th>Took 0-4 pills</th>
<th>Took half or less</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-section^1</td>
<td>53%</td>
<td>83%</td>
</tr>
<tr>
<td>Thoracic^1</td>
<td>45%</td>
<td>71%</td>
</tr>
<tr>
<td>Partial mastectomy^2</td>
<td>75% took none</td>
<td></td>
</tr>
<tr>
<td>Lap chole^2</td>
<td>34% took none</td>
<td></td>
</tr>
<tr>
<td>Lap inguinal hernia^2</td>
<td>45% took none</td>
<td></td>
</tr>
<tr>
<td>Wisdom tooth extraction^3</td>
<td></td>
<td>50%</td>
</tr>
</tbody>
</table>

Number Needed to Treat for “Good” Pain Relief
Single dose analgesics for patients with moderate to severe acute pain

<table>
<thead>
<tr>
<th>Medicine</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ibuprofen 200 + acetaminophen 500</td>
<td>1.6</td>
</tr>
<tr>
<td>Ibuprofen 400</td>
<td>2.5</td>
</tr>
<tr>
<td>Naproxen 440</td>
<td>2.7</td>
</tr>
<tr>
<td>Acetaminophen-oxydodone 650-10</td>
<td>2.7</td>
</tr>
<tr>
<td>Acetaminophen 500</td>
<td>3.5</td>
</tr>
<tr>
<td>Oxycodone 15</td>
<td>4.6</td>
</tr>
<tr>
<td>Tramadol 50</td>
<td>9.1</td>
</tr>
</tbody>
</table>

*No medicine produced high levels of pain relief in all participants. Moore, Cochrane Library, 2015.

Alternative Treatments with Good Evidence for Treating Chronic Pain

<table>
<thead>
<tr>
<th>Nonopioid Medications</th>
<th>Nonpharmacologic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaminophen</td>
<td>Cognitive-behavioral therapy</td>
</tr>
<tr>
<td>NSAIDs &amp; COX2 inhibitors</td>
<td>Exercise therapy</td>
</tr>
<tr>
<td>Anticonvulsants (gabapentin, pregabalin)</td>
<td>Yoga</td>
</tr>
<tr>
<td>Tricyclic antidepressants</td>
<td>Meditation</td>
</tr>
<tr>
<td>SSRI &amp; SNRI antidepressants</td>
<td>Mindfulness</td>
</tr>
<tr>
<td>Epidural injection</td>
<td>Acupuncture</td>
</tr>
<tr>
<td>Brain/spinal cord/nerve stimulation</td>
<td></td>
</tr>
</tbody>
</table>

It is no longer possible to simply continue previous practices with respect to the management of chronic pain.

2016 CDC Recommendations

6. Prescribe short durations for acute pain
Improving Opioid Prescribing and Patient Safety: Educational Outreach

Disclaimer
These are general recommendations only; specific clinical decisions should be made by the treating healthcare provider based on an individual patient's clinical condition. This document presents only general information regarding prescribing laws in the state of Maine. Prescribers in Maine are instructed to independently study Chapter 488 and comply with current state law and rules.

Learning Objectives
Each of the six modules (represented herein on pages 2-7) has two or three educational objectives accessible at: www.mainemed.com/MICIS

Additional Resources
- 2016 CDC Opioid Prescribing Guidelines: www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm
- Three page summary article of the opioid crisis and opioid prescribing guidelines by CDC Director Frieden in NEJM: www.nejm.org/doi/full/10.1056/NEJMp1515917#t=article
- Caring for ME: a joint project of Maine Quality Counts and the Maine Medical Association: www.qualitycounts.org/caringforme
- Quality Counts Controlled Medication Playbook: www.mainequalitycounts.org/ControlledMedicationPlaybook
- Opioid and chronic pain tool box, coming mid-2017: www.mainemed.com/MICIS

Funding Statement/Disclosure
This material was compiled by Elisabeth Fowlie Mock, MD, MPH, FAAFP, academic detailer for the Maine Independent Clinical Information Service (MICIS). Dr. Mock works as an Adult Hospitalist at Eastern Maine Medical Center and a buprenorphine prescriber at Groups clinic in Ellsworth. Dr. Mock was a paid consultant for Maine Quality Counts’ Chronic Pain Collaboratives, 2013-2016, supported by an unrestricted educational grant from Pfizer Independent Grants for Learning and Change.

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Education Statement
This monograph was created in support of accompanying live educational activities. This monograph is not approved for medical education credit.

FMI:
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